THE BLESSED BIRDS OR HIGHWAYS AND BYWAYS

BY

ELDRIDGE E. FISH

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OR

HIGHWAYS AND BYWAYS

BY ELDRIDGE EUGENE FISH.

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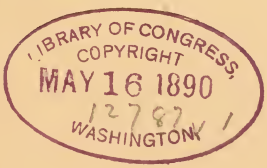

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PREFACE.

Some of the following papers originally appeared in the 'Buffalo Sunday Courier,' 'Buffalo Commercial,' Bulletin of the 'Society of Natural Sciences,' and Chicago 'Humane Journal.' They were apparently so well received that I have been persuaded to revise and republish them, in connection with others of more general interest, in book form.

What I have written of the birds in this little volume has been 'a labor of love.' Human companionship excepted, these blessed creatures have ministered to my happiness in a greater degree than any other class of objects. About home they have ever been a solace and a delight. When I have been among human strangers I have found the birds old acquaintances and intimate friends, always giving so much, and exacting so little in return. The continued persecution

which they have received from the cruel and unthinking has been the great sorrow of my life.

Although in a humble way, 'in season,' and perhaps, sometimes, 'out of season,' I have worked and pleaded for a better and wiser treatment of them, yet I shall ever remain their grateful debtor.

If I have written anything that shall make them better known and better loved—anything that shall cause a woman to hesitate before allowing any part of one to disfigure her garment—anything that will prevent the present lavish waste of life by the collector of specimens—anything that will check the wholesale destruction of nests by the thoughtless egg collector—I shall feel repaid for the labor bestowed.

SPRING ARRIVAL OF THE BIRDS.

"The interest the birds excite is of all grades, from that which looks upon them as items of millinery, up to that of makers of ornithological systems, who ransack the world for specimens, and who have no doubt that the chief end of a bird is to be named and catalogued. Somewhere between the two extremes comes the person whose interest in the birds is personal and friendly, who has little taste for shooting and an aversion for dissecting, who delights in the living creatures themselves, and counts a bird in the bush worth two in the hand; not rating birds merely as bodies, but as souls.

"Others will discover in the birds of which I write many things that I miss, and perhaps will miss some things which I have treated as patent or even conspicuous. It remains for each to testify what he has seen, and at the end to confess that a soul, even the soul of a bird, is, after all, a mystery."

BRADFORD TORREY'S 'BIRDS IN THE BUSH.'

SPRING ARRIVAL OF THE BIRDS.

March 27.—Among the fair gifts which the bright days of spring will bestow upon us, none are looked forward to with livelier anticipation of pleasure than the coming of the birds. If there is a tender spot in the heart, it will leap with a thrill of joy as the first musical note of the robin or bluebird falls on the ear, an invocation from awakening nature. It is the return of dear friends from long and perilous journeys. The only flaw in our enjoyment of them is the thought that only a fraction of those which left us last summer and autumn will return. Like the soldiers of an harassed army, many fell on field and highway on their southern journey; others were destroyed for food in the land to which they had gone to escape the cold of our winters, while still a larger number were killed and are being killed on their homeward journey. Each year these annual migrations are beset with increased perils. The country over which they pass offers fewer secure feeding places. Forests have been cut down; swamps have been drained; the freedmen who often watch for this small game are becoming more generally provided with fire-arms; additional lighthouses have been erected along the coasts. These latter are sources of peculiar danger to

the birds, as most of them fly during the nights; and if these are dark, the lighthouses always attract great numbers, which perish by dashing against them. Some mornings hundreds have been picked up under one of these false beacons to the birds. The city lights also allure thousands on dark and stormy nights. Many of these strike against the high buildings or against the net-work of wires, now so generally distributed. But the greatest danger, and the one for which all sensible and humane people must blush, is the bloody gauntlet these beautiful and innocent creatures have to pass, of the thousands of heartless, greedy gunners who are on the watch for their coming, and who kill countless scores of them which stop for rest or food or by stress of weather. The danger is all the greater, as the spring migrations mostly occur before the leaves are thick enough to screen from sight, and the birds are in bright plumage, the more attractive and tempting to the most destructive classes, the collectors of specimens and the gatherers of bird skins for decorative and millinery purposes. Between these two classes of outlaws, assisted by the army of worthless tramps who kill for the fun of killing, the innocent birds are subjected to persecutions unknown to other living creatures. The last few years have been those of great peril and destruction to them, and they are disappearing surely and more rapidly than the shy wild flowers over whose loss the true botanist is so justly troubled. When we realize the large number of men and boys whose sole occupation is killing them, and when we see the hun-

dreds and thousands of their lifeless bodies in shops, on hats and fans, in private cases and in museums, knowing too that for every one preserved many more are wasted and thrown away, we only wonder that any remain. We may truly say of these, as was said of old of other things, "Except these days be shortened, none shall be saved."

To those who truly love the birds and who make pleasant companionship with them, a yearly chronicling of their first arrival in the spring is an agreeable recreation. The observing naturalist knows pretty well when to expect the different species, although the weather may hasten or retard for a few days the arrival of some of the earlier migrants. A few of the hardier species remain in this latitude the year round. Among these are the snow-buntings, snow-birds, woodpeckers, nuthatches and titmice. The buntings and snow-birds feed mostly from seeds of the tall weeds which stand above the snow, while the others live on larvæ and insects' eggs, hidden in the bark of shrubs and trees, so that all weather is alike to them excepting when the trees are covered with a coating of ice. Many a day during the past winter, when the thermometer was near zero, and sometimes even below, the little black-capped titmouse (*Parus attricapillus*), cheerful and sprightly, lisped out his chick-a-de-dee as he searched the limbs of the maple trees for food. Occasionally on milder mornings, his sweet, plaintive whistle, much resembling that of the white-throated sparrow, was a grateful surprise, as this whistle is his usual love-song, oftener heard at mating

time. He has still another song, not put down in the books, which it has occasionally been my good fortune to hear, a dainty little warble, clear and liquid as a rippling brook.

Of the migratory birds proper, the shore larks (*Otocoris alpestris*) are probably the first ones here from the south. In moderate winters one may see them in the city suburbs or outlying fields in February. They often bring out the first brood in the latter part of March, or early in April. Last year near the park homestead a nest was found with four eggs, which were hatched the first week in April. I have seen the young birds running about as nimble as little partridges several seasons as early as this. The late snows often cover the bird while she is sitting on the nest, and it is a mystery how she keeps herself and eggs from freezing. These larks are so silent and retiring in manner that their presence is less likely to be observed than that of some of the later comers. In habit they are real ground birds, but, unlike most such, they walk or run, but do not hop. When closely pressed they take wing, uttering a soft "cheep," rise rapidly to some height, and then suddenly drop down again near the place of starting. They seldom alight on a tree or green bush, but often perch on a rail or fence-stake by the roadside, where, if undisturbed, they will sit silent for a long time.

While on the wing they often indulge in a low, monotonous warble, but their real song, which is sprightly and musical, is generally given from the ground, or from a perch on a stone in the open field.

They may easily be recognized by the strong markings, particularly about the head, a black crescent under the eye and a peculiar tuft of lengthened feathers on each ear resembling horns—from which one of their common names, "horned larks." The color of the back is a pale brown, the under parts being white, with a darker shading towards the upper breast, where it is met by a crescent of black. The throat and chin are yellow, and the tail black, with the outer edges tipped with white.

Of our three well-known favorites, the robin, bluebird and song sparrow, it is a question which we will see first, as it is sometimes one and sometimes another. In favorable localities, individual robins make their appearance in the advance, but the two other species generally arrive in force a little the earlier. On his first arrival the robin, in most cases, has only a call or a scold, and the bluebird only a gentle twitter; but the song sparrow comes with his sweet song in his throat ready to break out in clearest cadence almost as soon as he alights. The first mellow call of the robin, like that of the high hole, is as sweet as a song, and one of the most pleasing sounds of spring. When he has been here a day or two he will more than make amends for his first silence, and all through the spring and summer, early and late, he will fill the land with more rich melody than any other living being. He is a companionable bird, seeking the haunts of civilization, and may oftener be heard in orchards, lawns and along shady highways than in the forests.

March 9th, this year, blue birds were flying northward over the city at intervals during the morning. They had undoubtedly been on the wing all night, as it was pleasant and moonlight. They were just visible to the eye, and only uttured their plaintive "chee-ry," but it was the first real voice of spring, and sent a thrill of pleasure through the heart of the listener, quickening the pulses like some tender pathos in a poem. The following day, March 10th, robins were seen in different parts of the city, and song sparrows in considerable numbers were in the park and at Forest Lawn; these were in full song, and not troubled, like their weather-wise human friends, about the wintry weather still in store for them. In turning over my note-book I read "March 9 and 10, 1877, robins, song sparrows, blue birds and purple grackle here in great numbers." Only one year since have they come as early. Last year it was March 18th, and the year before a week later. They often arrive just before or soon after the spring equinox. The date of the arrival of those that come later when the weather is settled can be predicted with greater accuracy.

April 3.—Closely following the robins, sometimes accompanying them, are the purple grackles (*Quiscalus quiscula*). Their cousins, the redwings (*Agelais phœniceus*), come a little later. Both are harbingers of spring, bright spots of life and color in the naked landscape. On some bright, crisp morning in March we generally first see the grackle, where, from his high perch near the top of a tree, in a song, half gurgle, half

warble, he greets a companion sure to be near. The grackles choose an elevated position from which to sing, but in feeding they are less ambitious, and walk about leisurely on the ground searching for grubs and worms and other earth insects. In the fields they often follow, at a safe distance, the plow, eagerly devouring the fat, wriggling morsels brought to light by the upturned furrow. They are, to quite an extent, city birds, haunting lawns where are evergreens, and often nesting in these if the trees are large and dense. Forest Lawn is one of their favorite resorts, and hundreds of them remain here during the season. Every summer they nest in the evergreens of the old part of the cemetery, and a few pairs in the clumps of pines near the clear lake. When one of these nests is disturbed a dozen birds will frequently become noisy and threatening, making common cause against the intruder. They may well be watchful and unite forces, as they are not favorites of the smaller birds, which they often rob of eggs and young. One is sorry to even speak of any birds in other than commendatory terms, and if feasting on the delicious green corn of the farmers at the beginning of the fall migrations was their only fault, far would it be from me to expose their short-coming; but robbing nests and killing innocent birds are grievous faults, and the perpetrators, be they men, boys or birds, ought not to be shielded from proper punishment. The grackles are very handsome, with trim figures and rich suits of black and purple, emerald and bronze. These colors are changeable, in different lights, often showing an

iridescence as rich and brilliant as that of the wood duck or the wild pigeon.

The redwing, or American starling, is smaller than the grackle or crow blackbird, and although less brilliant, has stronger markings. The male is black, with the exception of the shoulders, which are bright scarlet, with buff and orange edgings. These epaulets are conspicuous, and give him a jaunty, military appearance well in keeping with his character. On his first arrival his habits are much like those of the grackle. He likes a perch on an upper twig or limb, where he will cluck and call, gurgle and whistle, as the mood overtakes him. One seldom hears a pleasanter musicale than was given one morning in Rumsey park by these bright-colored minstrels. It was just after sunrise. A robin began with his sweet old story of "Cherries, cherries, to be ripe in June;" a grackle from an evergreen interrupted with "For me? Are they for me?" Then some redwings from a neighboring willow chimed in, "Oh! what glee we shall see." One thought of Emerson's "May Day:"

> Why chidest thou the tardy spring?
> The blackbirds make the maples ring
> With social cheer and jubilee:
> The redwing flutes his ok-a-lee.

The redwings often stop several days in or about the city in the localities favored with tall trees, but on the arrival of the females, which is frequently two or three weeks later, they are off to low meadows, marshes or swamps, in which to nest, probably influenced by the

food supply more readily obtained in these places. With the exception of the cow-bunting, the blackbirds are all companionable, and later gregarious, gathering in large flocks, seemingly organized and under the direction of chosen leaders. Those bright little gems, the golden-crowned wrens (*Regulus satrapa*), began to arrive about the middle of March. They first made their presence known by a slight chirping as they hopped about the branches of the low trees in quest of food. They have stout little feet with sharp claws, and can cling to the trunk of a tree or on the under side of a limb much in the manner of the chicadees and creepers. They are the smallest of our song birds, genteel in figure, rich in color, with gentle and confiding manners. They are more frequently called "kinglets," and they answer well to the name "little kings," among the birds. They are courageous and hardy little creatures, braving cold and snows and long journeys. They seem to have little fear of man, and will allow one to stand within a few feet of them without showing any sign of apprehension. Their limited acquaintance doubtless accounts for this too often misplaced confidence.

A few days ago I was standing under an old oak, watching the graceful movements of three or four of these beautiful creatures as they chirped and twittered while searching the bark and twigs for food.

To attract their attention I commenced in low tones to talk to them. Suddenly one began to descend, hopping from one limb to another, and finally alighted on my head. It was only for an instant, however; as his

feet touched the hat it startled him, and with a quick chirp he flew to another tree. I could not again coax him within reach, although he watched me curiously for some time.

Most of them pass the winter months in the southern forests, and the summer in the northern woods away from the haunts of men; though some of them pass the summer in Central and Western New York. Ornithologists do not credit them with breeding as far south as this, but I have little doubt that they nest in the woods at Portage, Idlewood and Angola, as I have found them here in pairs, and in full song, from April till the middle of July. The golden-crowned wren is olive green above, darker between the wings; the outer webs of the wings and tail feathers are bright green; the under parts of the body a grayish white; the wings marked with black, with two white bars across them. There is a patch of bright orange on the crown, margined with yellow and black. This bright crown spot the bird can obscure by a movement of the yellow feathers surrounding it, so that it sometimes appears to flash like the sparkle of the firefly. The female and young have only the yellow in the place of the bright crest of the adult male. Their stay is often prolonged several days in the city and open country. During this time they have only a soft twitter or chirp, much like that of the little chippy, only shorter and lighter. Their fine songs are reserved for their summer home in the deep woods. This song is a sweet, vibrating whistle, and can be heard at a great distance. Burroughs calls

it the "needle song," it is so finely drawn. Its wild, sylvan melody, like that of the winter wren, hallows the woods, investing their shadowy recesses with an additional charm.

The high wind that partially wrecked Music Hall one night last October played mischief with these kinglets, which in great numbers were making their southern journey. They were compelled to alight; some were dashed to the ground, and others flew against windows where lights were left burning; some of these were taken in and cared for till morning. The following day the shade trees were alive with these bright little strangers, which immediately made themselves at home. It was pleasant to watch them as they busied themselves searching the tree for larvæ and insects' eggs. When they found an infected limb they did not leave until it was entirely cleared. The English sparrows watched them inquisitively, following them about, not knowing whether to regard them as visitors or intruders. They were so tame and unsuspecting that many were killed with sticks and stones by gangs of bad boys in different parts of the city, who went from tree to tree in pursuit until dispersed by policemen.

The past week has been one of extreme hardship to the venturesome birds. The drenching rain froze as it fell, coating everything with ice, thus cutting off the natural supply of food. This was followed by a fall of snow and severe cold. The robins have been silent and dumpish. Many of the blue birds perished, and others have disappeared. Even with those hardy little wrens the problem

of existence has been a close one, but the presence of so many of them shows that they have satisfactorily solved it.

April 10.—The ruby-crowned wrens (*Regulus calendula*) are a little tardier in coming than their cousins, the golden-crowned. In habit, size, color and markings they bear a close resemblance. The distinguishing physical feature is the redder patch on the crown of the former, which is often obscured by the loose feathers surrounding it. This patch is bright red instead of orange. The songs of the two species are very different. That of the ruby-crowned is a broken warble, while the golden-crowned is a slender whistle; both are on high keys and far-reaching. The former sing during their transient stay; the latter not till their arrival at their summer home in the woods. I know of but one other so small bird, and that is the winter wren, whose notes are so resonant and far-sounding as those of the ruby-crowned. To hear his song is a favor well worthy of chronicling. I shall not soon forget my glad surprise on first hearing it to know it. I was standing under one of the large larches in Forest Lawn when I heard sharp, vibratory call notes, much resembling those of the oriole, immediately followed by a warble of wonderful power, as clear, rich and ringing as that of the purple finch. My first thought was that it was the purple finch. And so very near! Looking up I saw the little Orpheus in feathers, his bright crown glowing in the sunlight; his throat swelling as the

sweet notes welled out in wild rhythm, while his whole body vibrated in ecstasy at his own music. Instead of appearing disturbed at my presence, he seemed to understand that he was giving pleasure, for he poured out song after song, all the time coming down on the limbs, nearer and nearer, until I could have reached him with my hand. On leaving I only regretted my inability in some measure to reward the gifted minstrel for the rare entertainment he had given, making, as it did, the world brighter and better.

The Hudsonian sparrow (*Junco hiemalis*) arrived here several days ago. Although few in number, they are conspicuous by their rich color and peculiar markings. The back is a dark slate, almost blue black, while the lower part of the body, and also the bill, are nearly white. The lateral quills in the tail are white, and show in flight much like those of the grass finch. They generally make their appearance in the morning, coming in small flocks during the night. They choose ravines, thick copses, hedges, or other sheltered places, during this weather, but those that do not go farther north for the summer will soon separate in pairs to begin nest building. Until recently these sparrows have not been credited with remaining through the summer in any considerable numbers as far south as this, but I have found their nests in several different counties in Central and Western New York, though generally in cooler, damper regions. Here they often raise two broods in a season, sometimes three. Their nests are placed on the ground ,and are always models in form and finish,

and lined with fine hair or other soft material. These nests much resemble those of the oven bird, except the artificial covering, but they are always so placed in tussocks, or on the side of knolls or banks, as to make a natural shelter that will completely hide from view the sitting birds. They have somehow learned that their conspicuous color makes this precaution necessary, while the neutral or ground-colored sparrows nearly all nest in open places, their resemblance to the surroundings proving their natural safeguard.

The common song of the junco is merely a succession of clear, tinkling notes like the rhythmic clinking of pieces of silver. I have also occasionally heard it indulge in a low warble, always pleasing, because unexpected. The Hudsonian sparrow has almost as many local names as the "flicker." Among them are "slate sparrow," from its color; "black chippy," from its chirping notes so similar to those of the chipping bird; and "snow bird," from its occasional appearance in company with the snow-bunting in midwinter.

The latter part of March small flocks of cedar birds (*Ampelis cedrorum*) put in a brief appearance. They were evidently on a tour of inspection, "spying out the land," as they soon returned south to await milder days and a better supply of food before settling for the summer. They are readily recognized by the tuft of crown feathers or "top-not;" and also by the little scarlet beads upon the wing feathers, resembling bits of red sealing wax. They are hardly classed among the singing birds, but their presence adds a charm to the sur-

roundings. Elegant in form and graceful in motion, with a plumage of soft, rich groundwork delicately tinted with brighter hues, these birds well harmonize with the fruits and flowers with which they are so often associated, for, although usually insectivorous, they eat more or less of ripe cherries, and also petals of blossoms, especially those of the red maple and hawthorn. They call attention to their presence by a faint lisping note unlike that of any other bird. They also indulge in a little warble so low as seldom to be noticed, except by the attentive ear. These pretty creatures are very gentle and affectionate among themselves, going about in little flocks and caressing and feeding one another like the turtle doves. If one of a pair is caught the other will allow itself to be taken also, rather than leave its imprisoned mate. These birds were formerly plentiful and very tame, but, to a great extent, they have shared the fate of so many others of bright plumage.

The present general discussion of this subject must necessarily eventuate in wiser dealings with these friends and better protection of them. Sensible women are quite generally discarding these unbecoming decorations. A change in public sentiment is apparent. A conversation I recently overheard between two little girls on the subject was a hopeful sign and worth noting. A sweet-faced little nine-year-old girl, seeing one of these ornaments on the hat of her companion, asked her why she wore it. "O! it is so pretty," she answered; "but," said the first, "would it not be much prettier alive, in a tree where it could sing?"

April 17.—Langille says: "Not many hours earlier or later than April 7th we hear the vesper sparrow (*Poocetes gramineus*), and almost at the same hour they are here in great numbers; and throughout our latitude the fields and pastures are everywhere enlivened by their appearance." My experience is that April weather has much to do in determining the day of the arrival of this species, as well as of many others. This year none of them were here before the 11th, and then only in limited numbers. Some years you may not hear one in this vicinity before April 20th, while in other seasons the latter part of March may bring them. A record in my note-book for fifteen years gives the middle of April as the average date. As remarked in a former paper, the weather has much to do in hastening or delaying the arrival of the earlier migrants, just as it has on the opening of the first wild flowers. But early or late in coming, the presence in any considerable numbers of these delightful birds brings glad tidings and a promise, not often broken, of real spring weather. They are not like the song sparrows, cheerful amid snow and sleet, singing with the weather at zero, but delight rather in the genial days of spring and summer. In other characteristics these two bear a close resemblance. They are about the same size and shape, and much the same general color. The vespers are a little lighter gray, less rufus on the back, and not so strongly marked. They have the distinguishing feature of two or three white lateral tail quills, which show plainly when they fly. They are less city birds in summer than the melo-

dia, but are more plentiful in grassy fields and along country highways, where they are particularly musical on warm, cloudy days and just at dusk. The songs of the melodia and gramineus differ in continuity and time; in other respects their similarity makes it difficult for many persons to distinguish the one from the other. The theme of the song sparrow is broken, and consists of from three to five bars or strains; that of the vesper is continuous, the notes beginning slowly, but rapidly accelerating in time until near the close, when the song diminishes in volume, the last notes becoming almost inaudible. The vesper sparrows are classed among the ecstatic singers, as they pour out the notes in the same fervent manner as do the veeries and quavering, or field sparrows. They are gregarious and sociable even during the nesting season, several pairs generally living in the same immediate neighborhood. At twilight their concerts are a delightful feature of country life. One will sing his sweet, though somewhat plaintive song, then another will take up the strain, and perhaps another and another, until half a dozen or more will be engaged in this vesper service, making almost a continuous strain of melody. These sparrows, unlike most of the family, usually nest in open places, making a carefully constructed nest on the ground in a little excavation without any cover or shelter. Perhaps this is a cunning ruse to deceive the little animals that go about nights probing around every tussock and hillock in quest of eggs and young birds. We know this clever bird, when scared from the nest, will run

very rapidly a few steps, and then fall and flutter along as though wounded until she has drawn the intruder from the nest, when she will suddenly arise and fly to a safe retreat, uttering as she goes a complaining note much like that of the song sparrow. I have found a few of these nests in brush heaps, and also in low, thick bushes. This sparrow is perhaps oftener known by the name of grass finch or bay-winged bunting.

April 14th I heard both the white-throated sparrows (*Zonotrichia albicollis*) and the white-crowned (*Zonotrichia leucophrys*). It was a surprise, as these sparrows are seldom seen in this neighborhood before the latter part of this month. During the spring and fall migrations these beautiful species are abundant. In spring they remain several days, singing very sweetly in the sunny mornings. In their breeding haunts farther north, they are said to sing in all kinds of weather, but I have never heard them sing here excepting on the pleasantest days. Their songs are simple but very pleasing. That of the white-throated consists of six or seven clearly whistled notes, in quality resembling those of the chickadee, but there are more of them and of greater variety.

The song of the white-crowned is peculiar. It begins with a clear, though subdued whistle, and ends with three or four detached, bell-like notes, unique but very delightful. If in sight these sparrows are easily identified by their conspicuous markings. The leucophrys has a white crown with black lines, the white meeting at the nape of the neck, and the black at the base of the

upper mandible. The albicollis has a black crown with white lateral lines, the black meeting at the back of the head, and the white in front. Both have white bars across the wings. The albicollis has also a pure white throat, with yellow on the edge of the wings, and also bright yellow lines from the bill to the eye. The other is without this brilliant yellow. These sparrows are often found in company, both in the spring and fall migrations.

April 24.—Not another sound in nature is so clear and joyous, so full of cheer and hearty greeting, as that of the highhole or golden-winged woodpecker (*Colaptes auratus*). The call is a musical "ha! ha! ha!" full of laughter and good fellowship, a most friendly spring greeting, in keeping with the pleasant April days in which one will first hear it. These few hearty notes are something like the resonant call notes which we first hear from the robin, and if not singing, these utterances are as sweet as a song, and should entitle the bird to be classed with the oscines. A few days later, when the preparations for housekeeping begin, these birds have a more subdued laughter, just as joyous perhaps, but less loud and boisterous. Sometimes two or three couples of them will play "hide and seek" around the branches or trunks of the trees, and say "yarrup, wake up; yarrup, wake up," with a rapidity not easily transcribed, indulging at the same time in much other small talk understood only by themselves. Many times I have lain under the trees watching their playful

maneuvers and listening to the delightful pleasantries, feeling that man is not the only animal endowed with conversational powers.

Not long since I spent half a forenoon watching the interesting performance of one of these most royal of birds on the chapel by Scajaquada Creek. He was on the iron-covered chimney, and hammering away on the sheet iron. He would stop a minute and listen for a response, then call loudly in his clear, mellow voice, and hammer away again on his fine sounding board. He knew he had "a good thing," and he kept possession of it most the forenoon. When I approached too near he would get behind the chimney and "wake up, wake up" to let me know he was not asleep. Sometimes these "golden wings" will find an old tin pan in a pasture to hammer upon.

We have few more useful, interesting and beautiful birds than these, which, although classed with the woodpeckers, have few of the characteristics of that family. They associate principally with the robins, and pass less time in the trees than on the ground, where they obtain most of their food, which to a large extent consists of ants and their eggs. Although naturally tame and confiding, they are very sagacious, and have learned to put themselves on the opposite side of the trunk or branches of the trees when menaced with the guns of sportsmen. The highholes are about a foot in length, with a plumage rich and brilliant. The back and upper sides of their wings are a dark umber transversely streaked with black. The under parts of the

body are white and pale yellow, with black, heart-shaped spots. A broad collar of jet black separates the throat and breast, while a crimson crescent ornaments the back of the head, and reaches to the eye. The under sides of the wings and tail and also all the quill shafts are a bright golden yellow.

For nesting places they generally select a dry stub or the decayed top of a live tree, chisel out a circular hole a few inches horizontally, and then work downward a foot or more, excavating a cavity large enough at the bottom to contain the brood of five or six young birds; six is the usual number. The nest is placed from five to fifty feet from the ground, according to convenience. I have seen them in stumps and also in the boles of apple trees within reach of the hand. I remember a large beech that stood just on the edge of my father's woods. The tree had limbs nearly all the way up its trunk. A few feet from the top was dead, and in this decayed part, just under the node of a broken limb, and at least fifty feet from the ground, a pair of high-holes excavated a nest which they used for four consecutive years. I say the same pair, for I easily recognized both of the birds, and used to watch with much interest for their annual return. Probably every day during the four years from the time the first egg was deposited till the young birds flew away, I climbed to the nest to examine the state of affairs and see how the family was getting along. The old birds, shy at first, became accustomed to my daily visits, and soon showed very little concern about my presence, and both would

come and feed the young while I was standing on a limb but a few feet below them. The two alternated in excavating the place for the nest, and both assisted in clearing it out each spring. All chips and refuse were carried away, that they might not betray the neighborhood of the nest. The male often brought food to his mate, although he took his place on the nest when she was away. The whole family, old and young, remained in the neighborhood and in company, and at the fall migration went south together. The fourth summer, just before the young birds were able to fly, a boy in the neighborhood shot one of the old ones, and the other continued the care of the brood. The tree was never again occupied as a nesting place. I have long been satisfied that several species of our song birds not only mated for the season, but for life. Such was certainly the case with this pair. Dr. C. C. Abbott, in a late charming book, "Waste Land Wanderings," devotes several pages to this interesting subject, being convinced from long and careful observation that many birds remain mated as long as both live.

Another interesting summer resident in this region is the Savanna sparrow (*Passerculus Savanna*). They make their appearance in this latitude about the middle of April and remain until October. These sparrows are not so plentiful nor so generally distributed as the song or vesper sparrows, but, like certain plants, they seem to have their favorite localities to which they are much attached. There are whole townships in which

you may not find one, while other neighborhoods abound with them. They seem to prefer stretches of level country, especially newly seeded meadows. They are plentiful on Buffalo Plains and at the Driving Park, and one frequently hears them along Chapin and Bidwell Parkways. The song is something like that of the song sparrow, and may easily be mistaken for a poor effort of this species. The time and divisions of the strains are similar, but the quality of the tone is entirely different, the notes of the one being clear and liquid, while those of the other are thin, stridulous and insect like. If you mistake it for that of the song sparrow it will prove disappointing, and you will think it a young bird, or one having a cold. Many people call all the sparrows "ground birds," just as they call all the little wood flowers "violets." This term would be appropriate for the Savanna, for it is pre-eminently a ground bird, as it feeds and nests on the ground, and remains most of the time in the grass. It seldom alights on a tree, never, as far as I have observed, amid the green foliage, but sings on the ground or from its low perch on the fence, or on a stone heap. While driving along Bidwell Parkway one day last week I had an excellent opportunity of comparing the songs of several species of sparrows, as the vespers, Hudsonians, Savannas and song sparrows were singing and in hearing at the same time. The gramineus, four or five in number, in the elms by the roadside, were the more conspicuous, each one in turn taking a solo as another finished. Two or three melodias sang the interlude,

while the Savannas, like tinkling cymbals, and the Hudsonians, the triangles, made the accompaniment.

May 1.—The purple finches, or American linnets (*Carpodacus purpureus*), are somewhat irregular in their spring migrations. A few usually put in an appearance early in March, but most of them come several weeks later. Before the leaves start, or the early trees blossom, they are just as irregular in their habits of singing. There are few birds endowed with greater musical capabilities than the linnets; yet, like other eminent artists, their singing is often variable and capricious. There is something very queer and interesting about their varied musical performances. Hidden in the leafy branches of the trees by the roadside, or near dwellings, their low warbles are as sweet and peaceful as those of the warbling vireos, which they much resemble; but, perched conspicuously on the topmost twig of a tree, they indulge in a much more ambitious carol, louder and of several bars. The two songs are so entirely different in theme and execution that one not well acquainted with their songs might easily believe them to emanate from birds of different species. Sometimes one will chant the song for an hour without moving from his perch. On the wing, and especially at mating time, these birds have a still finer song, more brilliant, vehement and rapturous. I remember one of these remarkable performances, and at its best. I heard the two or three call notes of the finches, and immediately two birds flew from a tree near which I was standing,

both in full song. Their flight was at first downward and very rapid, but when within a few feet of the earth they began to ascend, first one above, then the other, up, up, as we may suppose the skylarks mount, all the time singing so loud and with such vehement fervor that the whole field seemed filled with melody. It was a trial of flight as well as of song; of speed and physical endurance as well as of musical capabilities. The cause was soon manifest. A female sat demurely in the tree from which the others flew, evidently the prize for which so glorious a contest was carried on. When the two rivals came again in sight she joined them, and the three flew to another part of the field. The result to me was unknown, but the contest of flight and of song—how much better weapons than pistols or slander or gold! I am satisfied that in singing these different themes the birds have a particular object in view, for birds as well as men are actuated by motive. Those mentioned first, the quiet warblings, are not to attract attention, but for the singer's own gratification. The second, one judges from the conspicuous position of the birds, are given to attract others of the family, probably in most cases the females, while the songs uttered on the wing are generally the contests of rivals.

The male purple finch in full plumage is very attractive in appearance, having much crimson on the head, shoulders and throat, and considerable paler red on different parts of the body. Burroughs says: "It looks as though it had been dipped in cokeberry juice," but the color is too light for that and not uniformly enough

distributed. The amount of red and the shades of it differ greatly in different individuals, but in none is it purple, as the name would indicate. Stearns says this name was erroneously applied from the faulty coloring of some early plates, but it would seem that one ought never to name a bird without knowing personally at least its physical characteristics. The young males, the first year, and sometimes the second, lack the bright markings, and are plainly clad, like the females. If not singing they may easily be mistaken for sparrows, which they considerably resemble both in color and manner of flight.

The linnets are quite irregularly distributed, being plentiful in some neighborhoods, when there are few or none in others adjoining. Evergreens and certain fruit trees very likely have something to do with this unequal distribution, as they are partial to spruce, balsam and pine for nesting and hiding places, while the pear, cherry and hawthorn provide both vegetable and insect food. The linnets are fond of the pistils and stamens of the elms; and they undoubtedly eat some of the buds and flower organs of the fruit trees, thereby incurring the enmity of many farmers, who wage an exterminating war upon them. If the truth could be known it would be found that they never thin out the flowers sufficiently to cause the loss of any considerable quantity of fruit, and that for every quart destroyed they make it possible for ten times that number of bushels to grow. So little do we appreciate the services of our friends! Last summer I visited a fruit grower whose

boys were shooting the warbling vireos, supposing them to be purple finches from the resemblance of their singing. I trust my explanations saved the remaining vireos, and to some extent lessened in the boys' estimation the imaginary offenses of the finches.

The arrival of the vivacious American gold finches is welcomed by all who like bright color and cheerful voices. Though loaded down with scientific names, the latest, (*Spinus tristis*), they remain the same sunny optimists, accepting life as a boon and not a burden. Their cheerfulness is contagious and their presence seems to light up the surroundings like the sunshine. They are gems in color and proportion. Their motions are peculiarly graceful, and whether in their undulatory billowy flight, or hanging head downward from the feathery top of a pasture thistle, every movement is the very "poetry of motion."

The other day while walking in the edge of a woods in search of the hepatica, I suddenly became conscious that a whirlwind of bright feathers and happy voices was over my head in the branches of a spreading maple. The tree had suddenly become alive with a chattering, musical foliage, more brilliant than the colored leaves that dropped from it last autumn. It was like the "talking oaks of Dodona." A flock of at least fifty gold finches were taking possession of it, and a livelier, merrier, noisier tree-top one never saw. They were moving from branch to branch, continually changing places like the colors in a kaleidoscope, and singing, talking or calling at the same time. The tumult was

like that of a hundred little wicker cages of canaries suddenly uncovered by a bird fancier. Where did they come from? Ten minutes before none were there. Ten minutes later they were gone again. They were the first that I had seen this spring, and the few minutes that I watched them seemed to jump the calendar from April to the middle of summer. This habit of congregational singing seems to belong particularly to the gold finches. None of the other oscines indulge in it to any extent. The concert of the blackbirds is merely a recital.

The yellow birds generally remain in flocks until near the middle of summer, when they separate in pairs to begin nesting. Then a "new song is put into their mouths." The solos commence, and are entirely different from the choruses of the early season. After this time, one associates them with the purple thistles of the pastures, the silky pods of the milkweeds by the country roads, and the waving fields of flax with blue blossoms and shining seed bolls.

The gold finches follow civilization, and are found sparingly in newly settled parts of the country, and not beyond the frontier.

With the exceptions of the cedar birds they are the latest in the season to nest, seldom beginning till July, when the leaves are thickest. Building materials are then more plentiful, and the soft, milky seeds, most suitable for the young, are more easily obtained. Last year at Portage I found a brood of half-fledged birds the 20th day of September. In the city,

probably a majority of the empty nests, disclosed by the falling of the leaves in autumn, are those of the gold finches. These are more frequently in the smaller maples, and are fastened in the forks of slender branches.

We have few handsomer birds; the male is lemon color on the upper part of the body, a little paler beneath; the crown is jet black; the wings and tail are also nearly black, the former streaked, and the latter spotted with white. The female lacks the bright yellow, but is olive green, with many markings. One peculiarity of the gold finches is the undulating flight in long graceful curves; at each rise of which they utter a few soft musical notes like "we teeter, we teeter." They have a great variety of songs, none brilliant, but all sweet and pleasing. They have also many calls or conversational notes, much like those of the canaries, which in many respects they resemble.

Until millions of these innocent creatures fell a prey to the murdering plumage gatherers, they were very tame and confiding, and showed little fear of man. I have picked many a one from the head of a thistle or sunflower while it was eating the seeds, and after a minute or two when I let it go, it seldom showed itself much disturbed by such transient captivity. On one occasion the little creature immediately returned to the sunflower, when I captured it a second time.

Close to the house stood a small black cherry tree. Three years in succession a pair of these birds nested in it. I am confident it was the same pair—at least

the same female—as she showed so little fear at the frequent visits I made to the nest each year. It was necessary to bend the tree considerably in order to see into the nest. After the first summer the sitting bird would seldom fly off until the tree was bent so far that she was afraid of sliding off the nest. Sometimes she would not then move, but would look at me out of her fearless eyes, as much as to say, "You dare not upset me and spill us all out; my house is not on exhibition to-day, you will have to come another time." Of course I did as I understood her to command, and left her mistress of the situation.

Although late comers in the spring, the vireos, or greenlets, are great favorites of all lovers of the birds. Of the five or six species found in the State only two, the red eyed and warbling, are abundant in this locality. The red eyed vireo (*Vireo olivaceous*) is classed among the true sylvias or forest birds, but he is oftener found near clearings, and is becoming quite a summer resident in the cities, especially the sections abounding in large trees. He is a persistent singer, but sings most in the middle of hot days, when other birds are comparatively silent. He has a variety of songs,—or notes rather,—as they are much detached, all uttered leisurely, and many of them with the rising inflection, as though questioning his auditory. Not a great musician, yet his cheerful voice ringing its many changes on the few rather sharp notes makes him a cheerful companion, singing and talking and feeding among the leaves of the tree above one. Samuels enthusiastically writes of

him: "Of all my feathered acquaintances this is my favorite. I always loved it, and I can never look upon one after it is killed without a sad feeling, as if it were one of my own dear friends dead before me." The nests of all the vireos are exquisitely fashioned, pensile, but not swinging.

The warbling vireos (*Vireo gilvus*) are common in the city in summer, and are most excellent singers; still, perhaps, they are less known by people in general than most any other summer resident. They are small and inconspicuous in color, and their low, sweet voices do not catch the unlistening ear. They arrive with the thrushes in May, and distribute themselves freely in cities and villages, where they find abundant food in larvæ and small insects on leaves of the shade trees. Of all our city birds, the songs of the warbling vireos yield me the purest and most exquisite pleasure. They mean peace and joy and glad tidings. However worried with business cares, or disturbed in other relations, I am immediately put on good terms with surroundings by this little optimist with the voice of an angel. That soft, peaceful warble overhead among the green branches, floating down in waves of melody, makes the earth purer and brighter, and lifts the heart into the regions of sunlight, awakening in the mind the kindest thoughts towards all creatures. Thoreau caught the inspiration of the song and wrote:

"Upon the lofty elm tree sprays
The vireo sings the changes sweet
During the sultry summer days,
Lifting men's thoughts above the street."

Coues, generally only technical in his description of the oscines, is impelled to unbend in his treatment of this minstrel, and says: "Not another bird can rival the tenderness and softness of the liquid strains of this modest vocalist. Not born to 'waste its sweetness on the desert air,' the warbling vireo forsakes the depths of the woodland for the parks and orchards and shady streets, where it glides through the foliage of the tallest trees, the unseen messenger of rest and peace to the busy, dusty haunts of men."

The lengthened days of May bring back those matchless singers, the wood thrush and veery. Though late in their spring arrival, their seasons of song are longer than many that come earlier, often extending till late into August.

The wood thrushes (*Turdus mustelinus*) are quite generally distributed throughout the States, and are everywhere recognized as among the best of our woodland choristers. Probably no other sound quite equals in sweetness and purity of tone the best notes of this bird. If he only would combine the notes and strains into a theme or continuous song, like that of the vesper sparrow or bobolink, the music would surpass that of any other living creature. The notes are detached and the strains broken, and often preluded and interluded with guttural clucks like those of the redwing. We know him at his best at a distance, as we then get only the pure tones that have made him such a favorite. One charm of his singing is his habit of warbling the

bars in different keys. Longfellow must have had in his mind the wood thrush:

> "Whose household words are sung in many keys,
> Sweeter than instruments of man's ere caught;
> Whose habitation in the tree-tops even
> Are half-way houses on the road to Heaven."

The wood thrush, artist that he is, is partial to the upland groves and wooded hillsides. He also seems to love best forests in which beech and maple predominate. He is occasionally heard in the city, but at such times the voice is generally a surprise; it comes to the ear unexpectedly, and the listener is at a loss to place the singer. It is like meeting an old acquaintance whose face one knows so well, but for the instant cannot place. Then follows the delight at the recognition. A year ago I heard one sing on Niagara Square, in the heart of the city. It was in a spreading elm opposite the "Fillmore House." As I stopped to listen, several other pedestrians came along and halted, also to hear or get a sight of the stranger. This bird of gentle breeding seemed in no way abashed at the sight of the increased audience, and continued to sing until the barking of a dog under the tree disturbed him. One astonished and delighted listener asked me if "it was really a nightingale." I remember another surprise that haunted my mind pleasantly for days after. Early one morning, while sitting on the wall beside the winding and picturesque road that connects Cliff Avenue with the wooded portion of Forest Lawn, I was startled by the gurgling trill, then the clear "chil-a-dee-de,"

of a wood thrush just over my head. This was followed by nearly the same syllables, fuller and on a lower key. The song was immediately taken up by another thrush across the creek, and still a third further north, but in the Lawn. It was a glorious concert and in harmony with the peaceful surroundings. But how came these birds to be in this Lawn so far away from any extended woods, and three of them together? Had they selected that soft June day for an excursion? There would seem to have been method in the arrangement, as seldom more than one is heard singing in so open a place, and so far from any considerable piece of woods.

The veeries (*Turdus fucescens*) are not so equally distributed as the wood thrushes. They are more retiring, and seek low, rather than the high, wooded lands, probably because insects are more plentiful in such localities. Unlike others of the family, they are somewhat gregarious in their summer haunts. You will seldom find them singly, or even in pairs, but if there be one, several will be in the same locality.

The song of one is nearly always taken up by another in the neighborhood, and sometimes a dozen or more will join in the concert—not in chorus, but each waiting till the other has finished before beginning his solo. The song of the veery, or Wilson's thrush, although lacking the pure, flute-like notes of the wood thrush, is a continuous strain, fervid, ecstatic, very sweet, and of great power. There is a touch of wild weirdness not heard in any other strain. These few vibrating reed-like notes are repeated, and sometimes seemingly rolled

over one another in such a manner as to make the song far-reaching and very effective. No other sound so hallows the woods, and places where I find these artists congregated, if within reach, I visit again and again.

It seems curious that a bird voice will sometimes fill so large a place in the memory, to the exclusion of other things that would appear to be much more prominent. In a carriage journey of several hundred miles, no other places or events were so stamped on my mind as two pieces of woodland, in which the veeries were abundant and unusually tuneful. On the return we went many miles out of our way to stay one night in the vicinity to hear their morning and evening songs. Oliver Wendell Holmes, in speaking of the objects of interest enjoyed at Windsor Castle, says that none others so stirred his heart with pleasurable emotions as the hawthorn trees in blossom, and the notes of an English cuckoo in the Park. "Of all I saw and heard there, the two notes of the cuckoo will survive all other memories."

The bobolinks (*Dolichonyx oryzivorus*) make their appearance in this latitude early in May, some of them even in April, but these earlier comers show by their disconsolate manner that their surroundings are not yet congenial. They are summer birds and need their natural accessories, meadows of waving timothy, and green pastures flecked with the gold of buttercups. A country meadow without this cheerful, conspicuous singer in buff and black, would be like the big, brown country barn without its twittering swallow about its eaves and

gables, lacking its greatest charm and most fitting adornment. In the northern States the bobolink fills the place that the skylark does in Europe. Their songs considerably resemble each other; both are ecstatic singers, and both sing poised on the wing. The bobolink, however, sings also at rest, and never mounts to such heights in the air as the lark does. He sometimes starts the song while in flight, and finishes it from a perch on a bush or tree. Always nervous and active, and never quiet but for a minute at a time, he seems to get equal enjoyment in flight and in song. The bobolinks are pre-eminently birds of the open country, yet one need not necessarily go beyond the city to find them. They appear occasionally in the Park Meadow, where they and the meadow larks might become plentiful if it were not for the early mowing of the grass, which prevents their nesting in the meadow. But any pleasant day from May till August you can hear them singing in the fields just north of Jewett Avenue, where their presence still preserves a pastoral appearance to that delightful suburb. Several pairs nested in the vicinity last summer. My only regret at seeing those pretty houses multiply so rapidly in that inviting section is the thought that each new house will diminish the number of singers in those delightful afternoon concerts which I so frequently attend.

A DAY'S OUTING IN SEARCH OF THE ARBUTUS.

Here, underneath the snow, a flower
Is waiting for an April hour
To come, with blithe and balmy breeze
And blow the spring across the leas
A robin's song, or bubbling note
Of music from a bluebird's throat,
Will bid it put its dreams away,
And say good morning to the May.

We need not see the flower to know
What time Arbutus blossoms blow;
For every wind that wanders here
Will tell the tidings far and near;
A breath of fragrance, like a thought
That haunts you, but will not be caught
In words that fit the subject well;
Who shall describe the subtle spell;
The pink Arbutus blossoms bring,
To weave about the world in spring?

EBEN E. REXFORD.

A DAY'S OUTING IN SEARCH OF THE ARBUTUS.

If in any year I let April and May go by without taking a day's outing, in search of the trailing arbutus (*Epigea repens*), it is ever after a cause of regret. This characteristic New England plant, known better by the name the pilgrims gave it, Mayflower, is found in abundance at Olean, Portville and Salamanca, and sparingly at North Collins and Portage. To enjoy the flower most, one need not get it in large quantities. A few sprigs gathered in its natural habitat are better than bushels bought at the market. It seems as much out of place in a flower store or greenhouse as a wood-thrush in an aviary or in the den of a bird fancier. Both need the accessories of their wild surroundings. By selecting Portage as the field to be explored, one was sure to renew the acquaintance of many of the rarer and more interesting birds. The day chosen was a perfect one. A warm shower the night before had laid the dust and freshened the grass, which seemed a brighter green by being dotted by so many golden dandelions wide open to the sun. The buds on the earlier trees were just bursting into leaf, and were of such various shades that the different kinds of trees could easily be distinguished. Cherry and shad trees were already

arrayed in white, and contrasted pleasantly with the moose-wood and spice bushes, with their jackets of yellow. As the cars went by the patches of woods, the trilliums showed their white cups, and the erythroniums nodded gracefully amid their spotted leaves. Thrifty bunches of cowslips, or marsh marigolds, in the wet meadows were crowned with shining yellow blossoms, and women were picking the bitter but palatable leaves for greens. Nearing Portage, one could readily see the effects of the greater altitude in the more backward foliage, especially that of the oaks. The cars had hardly left the station at Portage, when a pair of blue birds on the telegraph wires caroled a pleasant song. A Hudsonian sparrow in a lilac bush tinkled his silvery bell, while the mate sharply chirped her dissatisfaction at something going on wrong about them. The chirping of these birds is quite different from that of other sparrows, and reveals their presence oftener than their songs. I have found several of their nests in this neighborhood. The English sparrows have taken possession of the evergreens in front of the hotel, and driven out the purple finches that for several years past have nested in the balsams. The finches, however, are in the groves back of the house, and were merrily singing during most of the day. The red-eyed vireos, cheerful and loud, were talking to one another in the tree-tops, and one listening to their half questioning, half expostulatory musical discourse, could readily understand why Wilson Flagg called them the "Little Preachers." The softer, sweeter voices of the warbling

vireos were mingling with these louder strains. It was the first time I had heard them this spring, though every day since, I have heard their cheerful songs in the elms along the city streets. In the upper Letchworth woods I occasionally hear the strange call of the white-eyed vireo. This call consists of three notes something like "it is queer," the last syllable strongly accented and much prolonged. The scarlet tanagers, that for several seasons past, by their beauty and sweet songs, have added such a charm to the surroundings, failed to come again this year. Probably some miserable taxidermist could tell, if he would, the cause of their detention. The grove back of the hotel had been explored by earlier arbutus gatherers, who had already picked and pulled up too much of these now rapidly disappearing plants. The lavish waste was apparent by the number of vines and half withered flowers scattered about in the track of the wasteful and thoughtless botanists. But I remembered some wild secluded nooks across the river unknown to most excursionists, where I was sure to find without difficulty all that I wished. Soon after dinner these retired nooks among the hemlocks and undergrowth of chestnuts were reached, and the sought treasures greeted us on every side, beautiful blossoms loading the air with a delicious fragrance, pleasing alike the senses of smell and sight.

The arbutus is inimitably sweet, having a wild, woodsy fragrance, aromatic and spicy, strongest of birch and wintergreen, and suggestive of other more delicate odors not easily analyzed.

"A breath of fragrance like a thought
That haunts you, but will not be caught."

Nothing can be prettier than the blossoms, some of which are bright pink, some nearly pure white, while others are as delicately tinted as a sea shell. The flowers are in axillary clusters. In some the stamens extend beyond the pistils, and in others the pistil protrudes farthest. Probably this arrangement is to assist the insects in cross fertilization. The bumble-bees seem partial to the arbutus, and on some knolls where the blossoms were most abundant these bees were so thick and noisy that my little daughter, who was with me, did not dare to pick the flowers. The stems and shining leaves, formed last summer, and the latter, green all winter under the snow, took in as they grew a food supply for their early blossoms, making it unnecessary for them to wait so long in the spring for the elements of earth and air to be converted into flower organs. The hepaticas have this same ingenious device for putting forth so early their attractive blossoms.

Near the clearing in the upper woods we came across a sandy knoll, the sunny side of which for a space of several yards was completely covered with the thrifty vines, all pink and white, and wonderfully sweet. The place had not been visited this spring, as the dry leaves, beneath which many a bright cluster lay hidden, had not been disturbed. The little girl was wild with delight as treasure after treasure was revealed by the removal of the leaves, and I confess my sympathy with her when she knelt down and kissed them in their fra-

grant bed and called them the "dear, blessed fairies of the woods." It was a sight to touch older hearts, and perhaps with a deeper feeling. I recalled the beautiful lines of the poet:

"We'll brush the last year's leaves aside,
And find where the shy blossoms hide,
And talk with them. We need no words
To tell our thoughts in. Winds and birds
And flowers, and those who love them, find
A language nature has designed
For such companionship. And they
Will tell us, each in its own way,
Things sweet and strange—new, and yet old
As earth itself, and yearly told.
But there are men who have grown gray
Among them, and have never heard
The voice of any flowers, and they
Laugh at men's friendship with a bird.
But we know better, you and I,
Dear little flower, beneath the snow:
Let these most foolish wise men try—
And fail—to prove it is not so."

No other objects in inanimate nature touch so many hearts tenderly, like the actual presence of dear friends, as flowers. Not children alone, but men and women often look upon them as endowed with attributes not possessed by other inanimate objects. It does not seem out of place to talk to them any more than to talk to young children. A favorite flower found wild in a strange land drives away home-sickness and, like the song of a familiar bird, gives a feeling of companionship and content. The old nature-loving Greeks were not so far out of their reckoning when they endowed trees and flowers with attributes akin to those of men.

Wordsworth says, "It is my faith that every flower which blows enjoys the air it breathes." Some late writers go farther, and have written books about the "Sagacity and Morality of Plants and Flowers."

Besides the arbutus, there were in blossom the blue, yellow and white violets,—the last small but quite fragrant,— trilliums, erythroniums, dentarias, dicentras, cardamines, wild ginger, aralia-trifolia, hepaticas and anemones. Here the hepaticas are all trilobas, instead of acuti lobas, as they are in the neighborhood of Buffalo. Many of them were very blue, and possessed an agreeable odor. One of the prettiest little blossoms found was the hen and chickens (*Anemone thalictroides*), as Gray calls it from the flower, and (*Thalictrum anemonoides*), named by Wood from its thalictrum-like leaf. It is called "hen and chickens," as it has a handsome white flower in the center, surrounded by several smaller ones which blossom later than the one in the center. Those acquainted with this region know how rich and varied are its flora and fauna. Later will come azaleas, pyrolas, sweet-scented crab, several species of wintergreen, including the beautiful flowering one with purple fringe, Mitchella, Clintonias, orchids, lady's slippers, fringed gentian, and many others. The rare and interesting birds are equally numerous. Within the radius of a hundred yards I have found the nests of six different species of thrushes. Among the warblers here at present I noted the Blackburnian, black-throated green, black and yellow, yellow rumped, bay winged, chestnut sided, Canada and summer warblers.

At the upper end of the ravine whose banks we had been exploring, I stooped down to scrape away the dry leaves that covered a patch of Mitchella repens. A small olive backed bird fluttered almost from beneath my hand, and half running, half flying, but apparently badly hurt, succeeded in making me attempt to pick her up. When I had followed a few yards, she took wing and glided gracefully away. I then knew what I should have known at first, that the cunning bird was tolling me away from her nest. I went back and examined very carefully the place from which she had first appeared, but could find nothing. Marking the spot by tying together some twigs of a hemlock that overhung the place, I went away long enough for her to return. Approaching the place very cautiously, and keeping my eyes on the patch of Mitchella, I was within a step of the spot, when out again fluttered the bird with the same cunning tactics, this time, however, unsuccessful. I had no difficulty now in finding the nest, which was not only well hidden by some moss on a projecting root, but was dome-shaped and completely covered, with only an opening at the side large enough for the bird to enter and leave. It was the nest of the oven bird or golden-crowned thrush (*Sciurus aurocapillus*), and contained five very pretty eggs, with groundwork almost white and spotted with brown. The nest and eggs closely resemble those of the Hudsonian sparrow. The mate for some time had been singing near by, and his loud military song, "I see, I see, I see," had evidently been intended to prevent me from seeing

what he and his mate had so prettily hidden. The bird was soon on her nest again, and I left her with sincere wishes for the safety of herself and her embryo-family. When not covered, the nest of the oven bird is often selected by the cow bunting in which to get its own little black brat incubated. The oven birds, like the summer warblers, are becoming wise in this matter, and many of them—not all—now roof over the nest, leaving the opening too small for the impostors to enter.

In getting over a fence that separated the woods from a pasture lot, I was thrown to the ground by the breaking of a rail. A whirr of wings and a brown bird went with a complaining whistle into the deeper woods. The flutter of her wings fanned my face, so near were we together. It was a partridge that had kept her place until I was nearly upon her, and, as I expected, she had been scared from her nest by the accident. At the root of a large beech by the fence was the uncovered nest with sixteen beautiful, speckled eggs. It was a sight to thrill with pleasure the heart of one athirst for the wild in nature, and the effects of the mishap were at once forgotten in the enjoyment of the pretty picture. The hurried leave-taking of the mistress of these treasures had scattered the leaves and feathers about and over the eggs, and in sympathy for her in the disturbance, I hurridly left the place that she might soon return. Several times during the day I had heard the drumming of the male from a thicket of bushes and young saplings near by, and before leaving the woods I visited the old mossy log that had been the

drumming place of partridges for several consecutive years. I was just in time to see the performer walk across a path a few feet from the log, and soon I heard his wings as he flew to another part of the woods. The drummer is a wary bird at these times, and one seldom gets a sight of him at his performance. No other sound in nature, except, perhaps, the honking of wild geese as they fly northward or southward in their wedge-shaped flocks, so thrills me as the drumming of the partridge; the sensations produced are undefinable, as the cause is unexplainable. Association may have much to do with it, as in these later years the sound always carries my thoughts back to the maple woods of the old homestead on the hillside, when this was the sweetest music that cheered the boys at their toilsome but wholesome sugar-making. Then I knew every drumming log for miles around, and every spring I kept watch and ward of at least a half dozen nests of these attractive birds.

Who that loves nature can help loving the partridge? not in the pot, but in the woods. It is such a handsome bird, hardy and innocent, and as Thoreau says, "like a russet link extending over from autumn to spring, preserving unbroken the choir of summer." If left unmolested for a few years what an added charm they would give to all the woods. They are not in any way trespassers on man's products. Why not let them alone in their forest retreats that ought to be sacred to them? I remember a brood that I had watched with boyish pride all summer; I had found the nest when there

were but two eggs in it. Several times I had caught some of the little birds—there were nearly twenty, counting the old ones. I thought what a woods full of partridges we should have the next year, but in the fall, after the leaves fell, two pot hunters, with guns and bird dogs, visited the place, and before leaving they killed the entire brood of these pretty creatures. Every man who loves the fields and woods ought earnestly to protest against a further slaughter of grouse and quail in our nearly cleared country.

Another favorite locality was yet to be explored. On the west side of this enchanted woods, a shaded highway separates it from a meadow. For some cause the arbutus still clings to this frontier. Here we found many patches of it in bud and blossom, and with it quantities of Gaultheria and Mitchella, with their shining green leaves decorated with red berries. Flowers and berries were all uncovered, and in plain sight of any who might pass by. It seemed a little curious that they had not been disturbed, but it is fortunate for some of us that travelers do not always see the most attractive objects along the way. Perhaps those who have been along this road were actuated by the same feelings that caused us to leave most of these pretty flowers to sweeten the air about them. A pair of brown thrashers came skulking across the road, and perching on an old stump fence opposite, began scolding in tones so much resembling those of the tree toads. They will not sing until some days later, when the trees are in fuller leaf.

While we were resting on a steep, mossy bank near the highway and railroad crossing, a Hudsonian sparrow appeared much disturbed at our prolonged stay, and chirped in that sharp tone peculiar to this sparrow. These birds were very plentiful near the home of my boyhood, and I knew well their "tricks and their manners," so I began at once to search for the cause of the disturbance. The female soon flew up from her nest in the side of the bank on which we had been sitting. The four eggs, beautiful as pearls, with pure white groundwork thickly dotted with brown, were rounder than the eggs of other sparrows. The nests, too, excel in workmanship and material those of any others of the genus. This nest was deep, and thickly lined with the softest of materials—a gem of architecture. A flat stone half a foot square, and held in place by an oak root, projected over the entrance to the nest, forming a perfect veranda, and completely shielding it from rain and shine. Fortunate, indeed, the little birds to be cradled in such a "lap of luxury!" These slate-colored juncos are conspicuous by their many white quills and feathers, and by their flesh-colored feet and bills.

The lengthened shadows reminded us that there were other haunts of old acquaintances nearer the hotel yet to be visited. Among them were two pairs of phebes that have nested in the hotel barn for several years past. They have been intimate acquaintances, and I have watched them many a day from a seat in the spacious and pleasant old barn. None of them had yet returned. Last summer a young man, to show his cun-

ning in the use of a whip, struck one of these birds, when it came in to feed the young, and killed it. The other three continued the care of the two broods of young birds until they were able to take care of themselves; but they may have taken warning by such a brutal breach of confidence and concluded to go elsewhere hereafter. They will have at least one old friend who will continue to look for their return, and take note of the outcome.

Last year a pair of chipping birds had a nest in the woodbine on the piazza, the east side of the hotel. It had been a pleasure to sit under the vine and watch the old birds feed the young. I had been with them so much that they paid little more attention to my presence than they did to the old apple tree that stood so near them. I could hardly expect them again this year, as the perils of migration prevent the return of the larger half of the birds that went south in the fall; but on going to look, I found them building a nest in the same place that they used last year. I think they recognized me as an old acquaintance, for they came with material and arranged it several times while I stood close by watching them.

The woodbine on the veranda of the summer cottage, not yet occupied, contained two robins' nests, one with three and the other four eggs. Nothing is prettier than these bluish green eggs with their future possibilities. One would be glad to know that they will remain unmolested until the metamorphosis that will make glad the heart of the mother birds.

Just before dusk I was much interested in the singing of a wood thrush. It was in the edge of the woods back of the hotel. The gurgling preludes and interludes were fine, while the song itself, alternating on high and low keys, was sweet and mellow as any flute and exquisitely modulated. Each "trill-a dee dee!" came back in echo clear and perfect as the song itself. At first those who heard it supposed the echo came from the rocks across the river, but in changing positions we soon found that the barn sent it back, thus doubling the effect of the delightful harmony.

VENTRILOQUIAL AND IMITATIVE POWER OF BIRDS.

O blithe new-comer! I have heard,
I hear thee and rejoice,
O cuckoo! shall I call thee bird,
Or but a wandering voice?

While I am lying on the grass
Thy two-fold shout I hear;
From hill to hill it seems to pass,
At once far off and near.

Thrice welcome, darling of the spring!
Even yet thou art to me
No bird, but an invisible thing—
A voice, a mystery;

The same whom in my schoolboy days
I listened to; that cry
Which made me look a thousand ways,
In bush and tree and sky.

"WORDSWORTH."

VENTRILOQUIAL AND IMITATIVE POWER OF BIRDS.

Those who have observed the habits of birds know that they possess the power of imitation, but only at a recent period have naturalists recognized in them the possession of that rarer gift, ventriloquism. Most of the thrush family (*Turdidæ*) have to some extent this power, though some species rarely exercise it. When we hear the two thrushes (*Turdus fuscescens* and *Turdus mustelinus*), we look for them much higher in the trees than they really are. Before people become accustomed to this voice trick of these thrushes, they are often perplexed in locating the singers.

I remember one extreme instance: a wood thrush was singing his differently keyed strains with great power and sweetness. I was looking through the branches of a thick hemlock, expecting to see him up thirty or forty feet in the tree. Instead of this elevation, he was within three or four feet of the ground, not twenty feet from me. For a long time he continued his songs, but all the time with this ventriloquial effect.

The golden-crowned thrush (*Sciurus aurocapillus*) has a habit of throwing its voice to a great distance. The clear military notes "I see! I see!" will sometimes startle you with their apparent nearness, when in fact

the bird may be in quite another part of the woods; then again, when the bird is within a few feet of you, the song will appear to come from a distant locality.

Even the familiar robin (*Merula migratoria*) often makes use of this power with good effect. When he sings at mating time, or to attract attention, or from his innate love of song, he will carol away with such an *abandon* and fullness of tone that he appears to be much nearer than he really is; but when he sings exclusively for his mate, or for the newly fledged young, whose presence he wishes to conceal from others, the song is low and tender, often half smothered, or made to appear in another place.

The cat birds, which are among the most interesting as well as the most intelligent of the feathered tribe, have in individual instances, probably, arrived at a greater degree of proficiency in this art than any others of the family. They not only imitate well many notes and calls of other birds, but by modulating their tones they are capable of producing great deception in regard to their whereabouts. One day while watching some robins and gold finches bathing together in a little creek, I heard a cat bird warbling very sweetly, but apparently at a great distance away. As a treeless meadow lay in the direction from which the song proceeded, I wondered where the bird could be hidden, and sweeping a field glass over the stretch of meadow, I failed to locate him. To my surprise, I finally discovered the singer in a little thorn bush not ten feet from the place where I was standing, though the sound indicated the distance to be

many rods. On looking through the bush tangled with vines, I found the mate sitting on her nest of eggs. The male, while singing to her, had been throwing his voice to a distance, evidently to mislead intruders. It was a clear case of ventriloquism exercised with a motive, for as soon as he knew the nest was found he flew to an oak some distance off and commenced a loud rollicking song, moving about from limb to limb, doubtless hoping to divert my attention from the nesting place.

At least two of the wrens (*Troglodytes aedon* and *Troglodytes hiemalis*) possess more or less ventriloquial power. I remember how I once searched for a winter wren that was singing in a cedar thicket. I heard the song first on one side, then on another, always seeming to be above me, when in reality the bird was all the time on an upturned root of a little sapling, within plain sight. Several times afterwards I heard this wren go through a similar performance.

In his "Rambles About Home," Dr. C. C. Abbott relates a very interesting experience on this subject with the yellow-breasted chat (*Icteria virens*). "From the branch of a tall locust a chat warbled a series of sweet, liquid notes, then squealed like a squirrel and yelped like a dog; following this with a wild outburst of glorious melody. While listening and wondering what next would greet my ears, I was surprised and startled by hearing the same strange sounds repeated, but at some distance off. Another chat farther down the path was singing in the same strange way. Another it must be,

for the first is still in sight in the same locust tree, flitting carelessly about and apparently silent. Curious to hear the new-comer I passed on, when the sounds were heard in the opposite direction. I retraced my steps, and now the strange medley came from the low bushes about me, and while looking carefully for the unseen chat that seemed so near, there came floating down to me from the tall locust's topmost branch the same series of odd sounds and sweet warblings. The truth was now clear; the one bird had uttered every sound I had heard, and by his ventriloquism had for the time completely deceived me. My study of this habit and of its use now commenced, and for long weeks I watched him to test in every way his ability to mislead one by the exercise of this peculiar power. A little later the female appeared, and the two quickly selected a suitable spot in a tangled mass of blackberry briers at the foot of the locust tree, and built a commodious but roughly constructed nest. While the mate was sitting, the male chat seemed more animated than ever, and jealous of any intruder, he threw his voice in every direction other than towards the nest, whenever anyone came too near. By watching from a concealment, I found that when not disturbed they uttered fewer strange cries of imitation, and seldom exercised their ventriloquial powers, but however suddenly I appeared from my concealment, there was an equally quick uttering of notes of distress, coming as it seemed from a point several yards distant. Vary my experiment as I would, it mattered not; the bird was thoroughly conscious of its ventriloquial

powers, and trusted far more to it than to flight to avoid and mislead any intruder."

In discussing this subject further, Dr. Abbott thinks that through the lapse of ages the birds have, through experience, learned some of the simple laws of sound. "They know as well as man does that certain notes can be heard at a greater distance than others. This knowledge of one of the properties of sound, simple as it is, is the starting point in the acquirement of mimicry, which is the intermediate stage between ventriloquism and the ordinary vocal utterances, including their songs."

Probably very few birds of any species have arrived at such proficiency in this art, for art it certainly is, as have the chats and some of the wrens, which seem able to throw their voices in any direction. Many individuals of other species are only able to modulate their tones so as to seem distant or near, like the crooning of the loons or piping of certain plovers on the wing, and the cooing of the Carolina doves.

Bradford Torry, who is a close observer and has a quick ear for bird notes, writes of one of the vireos. "The White-eyed is a singer of astonishing spirit, and his sudden changes from one theme to another are sometimes almost startling. He is a skillful ventriloquist also, and I remember one in particular who outwitted me completely. He was rehearsing a well-known strain, but at the end there came up from the bushes underneath a querulous call. At first, I took it for granted that some other bird was in the underbush,

but the note was repeated too many times, and came in too exactly on the beat."

Several of the sparrows modulate their notes so as to greatly deceive in regard to distance. In riding along country roads how often one looks away into fields to see the vesper sparrow (*Poœcetes gramineus*), when it is singing from its perch close by, on a fence stake. The song of the field sparrow (*Spizella pusilla*) is still more deceiving. One is also often puzzled to locate the notes of the Baltimore oriole (*Icterus galbula*). Both sexes have, to a certain extent, this power to mislead, and what is still more curious, the young birds will often perplex one in regard to their whereabouts.

Few birds with soft voices can project their notes farther than can the cuckoos, but often in the near presence of man there is such a 'remoteness' about their mellow "coo, coo," that only the trained ear of an ornithologist can readily locate the bird. Burroughs speaks of their "clairvoyant call," and Wordsworth, without giving it a name, recognized this quality when he sings of the cuckoo:

> "While I am lying on the grass,
> Thy loud note smites my ear;
> From hill to hill it seems to pass:
> At once far off and near."

Lowell, in his charming sketch, "My Garden Acquaintance," notices this habit of the robins: "When they come after my cherries to the tree near my window, they always muffle their voices, and their faint peep sounds far away at the bottom of the garden. The

screech owl also softens its voice in the same way, with the most beguiling mockery of distance."

Most birds have themes or songs peculiar to their own species, and when we have learned these we recognize them whenever we hear them. Not so, however, of all. Even the common little gold finch (*Spinus tristis*) will often utter a strain so new and strange that those most familiar with it fail for a moment to recognize the author. The purple finch (*Carpodacus purpurens*) is also a variable singer. Some of his songs are as soft and peaceful as those of the warbling vireo; others wild and sylvan as those of the wood-thrush or winter wren, while still others are loud, sharp, and harsh, with as little melody as the song of the indigo bird. Their songs in different localities also differ so greatly that to the uninitiated they may easily be mistaken for those of other species. I remember a remarkable performance of one of these finches. While gathering rhododendrons in a wet woods near Angola, I was surprised at a strange song that broke the stillness of the quiet afternoon. It was low, sweet, tremulous, running up and down in such quavers of pure melody that for the moment I was sure that I was listening to an unknown singer of rare power, and not until I saw the bird could I believe that it was the familiar purple finch. The young birds had but recently flown from the nest, and two or three of them, with the old birds, were at times in the same tree. The female was quite busy going and coming with food for the young, while the male continued for a long time

singing his incomparably sweet songs, stopping only occasionally to caress one of the little birds as he passed from one to the other. It was a question whether this extra music was indulged in for the especial pleasure of his little family, or whether it was the every-day song of this particular finch.

In describing the birds of the Catskill, Eugene Bicknell says of the purple finches: "They appeared to be in full voice, but their songs were so different from that of the same species near New York City that I doubted their identity, till a specimen was secured. Not only the notes, but the manner of delivering them was entirely strange. In the lower Hudson Valley the song of this finch is rich and voluble, with the notes of definite character and number. In the Catskills all the notes were weak and inexpressive, and the song brief and of uncertain character."

The songs of some bobolinks are remarkable performances, both in tone and execution. The music of others is like that from instruments cracked and out of tune. Wilson Flagg says: "The songs of the song sparrow (*Melospiza fasciata*), in the wilds of Northern New England, are more plaintive and sylvan, though not so loud and theme-like, as in thickly settled localities."

The power of imitation is possessed by a much larger number of birds than that of ventriloquism. Some individuals will master the entire song of another species. Bobolinks, when caged, have been known to appropriate the song of canaries and sing them for months, in preference to their own. Other birds will

only acquire certain notes or bars, which they sometimes incorporate in their own songs, thus making quaint and curious medleys of doubtful quality. Canaries long living in company where they continually hear one another's notes will finally sing very nearly alike, though at first the general characteristics of their songs may have been quite different.

The mocking-birds excepted, perhaps the song sparrow, oftener than others, mix with their strains notes not belonging to their own songs. I have heard them throw in those of the chewink, both at the middle and ending of their songs; also that of the robin, blue bird, phebe bird, and purple finch.

Near a creek which is much frequented by water birds, I have heard during the past three summers a sparrow interject in his otherwise fine song the high, sharp notes of the peetweet. Dr. Placzek, in the *Popular Science Monthly*, speaks of a yellow thrush taken from the nest and domesticated, which, of its own accord, commenced crowing like a cock. "I sometimes heard, early in the morning, a clear, melodious cock crowing that seemed to come from a distant barn-yard. Going into the library one morning, where the bird was, I sat still in a further corner of the room till things began to get lively in the cage. I could see him without being seen. Soon he found his voice, and sounded the cock crow which I had so often heard before without suspecting its real origin. Had I not seen the bird's mouth open and his throat vibrating, I should still have thought the sound came from a distance.

When he saw me he broke off in the middle of the crowing. There is nothing particularly remarkable in the crowing of itself, for many birds imitate the sounds made by other animals. The curious fact about it was, that the bird would not crow in my presence, and would always stop when any one appeared to witness the execution. I attributed his conduct to a feeling of shame, or to a sense of unfitness of that method of expression. Have we not in this another proof of the possession of animals of a psychical quality which it has been used to regard as peculiarly and distinctively human?"

The blue-jay has considerable power of imitation, and frequently indulges in mimicry. One kept by a family whom I was visiting, would say "whoa" to the horse, sufficiently plain to stop the animal. If the bird was by the window, in sight of the gate, he was sure to call out "whoa" whenever the family horse was driven to the door. The jay never uttered the word to any horse except that of his master.

In its wild state I have never heard a bobolink make a hissing noise, yet a tame one which we had in our possession, when disturbed or displeased, would hiss almost exactly like a goose. If a canary alighted on his cage, the bobolink would thrust out his head toward the intruder and hiss it off. Once, in a field, I heard a bobolink sing half the most common song of the American gold finch. Last summer I used often to walk across Portage High Bridge to the Letchworth woods, to listen to a remarkably fine-voiced wood-thrush, that

in every song interjected the long plaintive call of the wood-pewee. The effect was unique and surprising.

To those interested in the psychical or reason development of birds, this subject possesses increased interest. It is quite generally conceded that birds are not only the most interesting, but in some respects the most highly organized, especially in form, color, voice, and power of locomotion, of any of the so-called lower animals. In some directions, too, they are the most intelligent. Not only does their heredity count for much, but their experience is a large factor in shaping and modifying their manner of life. Many of them are quick to take advantage of any extraneous circumstances by which their conditions may be bettered. How many cases come under our notice in which cause and effect plainly enter into their calculation. Several species throw out sentinels to guard against surprise, and these have signal notes well understood by all. They learn to avoid localities that are extra dangerous, and often gather in large numbers where safety is assured. They profit both by experience and example, often modifying their nesting habits, and adopting new methods for protection. What subterfuges our native birds make use of to mislead and baffle larger birds of prey. On the contrary, the English sparrows, mostly denizens of villages and cities, and not often having been exposed to the dangers that beset the birds of forests and fields, fall an easy prey to the smaller hawks, owls and shrikes that occasionally find their way among them. They know well enough how to avoid the

dangers of city life, and are seldom caught napping by cat or boy.

As the birds and their eggs are so preyed upon by such a multiplicity of enemies, perpétuation and self-defense become the main problem of their lives. We all know how the female bird, when flushed from the nest, will flutter away, hobbling as though disabled and an easy prey until the pursuer is at a reasonable distance from the nest, when she will suddenly take wing and fly away to a safe retreat. It is easy to see what valuable services both mimicry and ventriloquism might be to them in avoiding and misleading their enemies, and it is not unreasonable to believe that in the future ages these habits may become so general as to constitute a prominent feature in the bird's method of protection.

WRENS.

"The robin and the wren
Are God Almighty's cock and hen."

OLD BALLAD.

"With head beneath her wing,
A little wren was sleeping,
So near, I had found it an easy thing
To steal her for my keeping."

INGELOW.

"It was decided in a parliament of the birds that the one that flew highest should be their king. The wren hid itself on the eagle's back, and when the eagle had flown the highest the wren fluttered a little higher still."

GLOSSARY.

"The winter wren in summer, is one of those birds of the deep forest, that like the Canada speckled warbler and the hermit thrush, only the privileged ones hear."

"WAKE ROBIN."

WRENS.

The wrens (*Troglodítidæ*) belong to one of the highest families of the oscines. They have many of the characteristics of the thrushes, with which some of them were formerly classified, having like them ten primaries, and being endowed with much of the vocal power for which the thrushes are so justly celebrated. In structure they differ from the latter by having scutellate tarsi and a basal cohesion of toes. Their food is similar to that of the creepers and nuthatches, with which they are often found in company. Some of them also, like the nuthatches, build in knot-holes and crevices, placing the nest out of sight.

No other family except the sylvicolidæ have such diverse habitat, some of the genera making their summer haunts in marshes, some in lawns and orchards, and others in deep woods.

The marsh wrens, among reeds and rushes along the lakes and river shores, with their gurgling melodies, break the monody of the rippling waters, and add a charm to the often otherwise lonely scene; the friendly, sociable little house wrens sing in fields and gardens, in orchards and along dusty highways; while the winter wrens are the sylvan fairies of the woods which

they enliven by their cheerful presence, and often fill with a wild, sweet melody.

The family is very generally distributed throughout the old and new world, and although less numerous here than in many parts of Europe, in America alone there are said to be upwards of one hundred species, most of them, however, found only in Central and South America. In the United States we have less than a score of well-known species, and only five or six of these are numerous in the Middle and Eastern States.

The most abundant of these, and the most useful, is the house wren (*Troglodytes ædon*). This interesting little character, familiar and domestic in his habits, stands second among the wrens as a vocalist, only the winter wren surpassing it in vivacity and sweetness of song.

He is too well known to need an extended description of personal appearance, having the typical characteristics of the family; a rich plumage of dark ground work marked with waves and crossbars, small slender bill, short rounded wings, and tail jauntily elevated like that of the bantam, giving his whole appearance an air of comical pertness and daring, corresponding well with his saucy, scolding, chattering ways. He often makes his appearance in this latitude early in April, and continues in song till August, singing at intervals from early morning till dusk. His song is noted for its gushing volubility and rapidity of utterance. The song is so joyful and cheerful, poured out with such heartiness that one never wearies of the oft-repeated strain

uttered like dissyllabic words, bubbling out and effervescing as though the little body had been charged with musical carbonic acid gas. Few other native birds show such fondness for the companionship of man. About country houses and village lawns he is the commonest of the native birds. Before the sparrow pest became so general, he was very abundant in cities, often occupying the little bird houses attached to trees or buildings, or making his nest in some niche in the wall, where often two broods were raised in one season. Unlike many other birds, the house wren sings most near its nest. If the nest is in the dry limb of a tree, you will hear the male bird only a few feet from the structure, above it, below it, or on one side, changing continually his place and attitude, appearing only intent to utter the greatest number of songs in the shortest possible time. If the nest is placed in a stump, then he will do most of his singing from this or from an adjoining stump. When he builds in a cranny or niche of the wall of a dwelling, he will sing by the hour from the roof, going from gable to gable on the ridge, stopping occasionally to scold at the dog or cat below. The roof of the country barn is one of his favorite perches, when he has a nest near by. Sometimes he builds sham nests not very far from the one containing the treasures of eggs or young; these are only "make believes," never finished, and with no attempt at concealment.

Whether he does this extra work for pastime in the exuberance of spirits, or as a stratagem to divert attention from the real nest, is a question. In a stumpy

pasture at Charlevoix, I was attracted by the loud and continued singing of one of these birds, and going to the place, I saw him on a crumbling stump, pouring out song after song, and not stopping until I was almost within reach of him; then he moved to another stump near by—all the time continuing his song. An examination of the first stump revealed a half finished nest in an exposed cavity, very unlike one made for use. Following him up to his second perch I found a similar structure; not to be thrown off the track, I continued the search, and in a decayed limb of a fallen tree in an excavated cavity, I found the real nest, on which was sitting the female. The little pretender put off his careless demeanor and changed his song to such a burst of rage and distress that I hurried away and left him to try his stratagem on the next visitor.

A pair of wrens, for several consecutive years, built in a large auger hole in a gate post quite near the house. The birds never appeared disturbed by the people and teams that passed by the nest, sometimes hourly and with much noise. The presence of the house cat alone gave annoyance to the fearless little couple, and when this cat caught one of the little ones which had left the nest a little prematurely, the anger and bereaved affection manifested by these courageous little creatures was marvelous to behold. They scolded, lamented, and condoled in their bird fashion, and even gave the cat battle.

The house wren is not only a most interesting little bird and delightful singer, but he is very useful withal,

clearing our bushes and fruit trees of insects and larvæ —a benefactor to the husbandman and horticulturist. His usefulness has no drawbacks, as he neither disturbs bud nor grain, being entirely insectivorous in his habits. A gentleman in Central New York, appreciating the advantage of having a colony of such workers on his premises, provided nesting places for a goodly number, and for several years a score of nests were built in the orchard and near the house. By this means his vines and trees bore plentifully of fruit. Finally the sparrow struck this locality in such numbers that his friends were driven away.

The nests of the wrens are variable, differing as widely in size and material as in the places in which they are built. Some are small and compact, made almost wholly of the finest fabrics, while others on the outside are of coarse sticks, sometimes in immense quantities, but inside they are all neatly finished and deftly lined with the softest of stuffs—much of it down and soft wool. The eggs are from six to nine in number, of a delicate pinkish white and finely dotted with reddish brown. Two broods, and sometimes three are raised in a season.

The long-billed marsh wrens (*Cistothorus palustris*) probably are second in point of number, but are more local in their distribution. They are principally found in swampy tracts of the interior, and in marshes along the coasts of rivers, lakes and oceans. They are more gregarious than the others of the family, and colonize somewhat in nesting. They are vivacious and musical

in the breeding season, but their singing is mostly gurgling and chattering, with little attempt at a theme. The movements of these birds are characteristic of the wrens, quick and brusque.

The nests are a curious compound of grass, sticks, feathers, and lichens; these are sometimes mixed with a little mud, and fastened in a bunch of grass or reeds intertwined and laced together so that the green grass partially covers and neutralizes the appearance of the bulky structure.

The nest has an opening on one side, and is a very safe and cozy place for the mother-bird and young. These nests are very abundant on the marshy islands in the upper Niagara River, and show quite conspicuously in the fall after the rank vegetation withers.

I have found these nests as early as May, and I saw one there last summer, past the middle of July, containing nine eggs. These eggs are much darker than those of the house wren, often so thickly dotted with reddish chocolate as to almost obscure the pinkish groundwork.

Less abundant, though perhaps more equally distributed, are the short-billed marsh wrens (*Cistothorus stellaris*). In many respects these resemble the long-billed, but with general plumage lighter, running more to streaks than cross-bars. The bill is slender and very short. No mud is used in the construction of the nest. The eggs are pure white.

The great Carolina wren (*Troglodytes ludovicianus*) is occasionally found in this locality, but so rarely that he can hardly be claimed as a resident.

The most royal of the family is the winter wren (*Troglodytes hiemalis*). He is graceful and vivacious. His plumage is rich and soft, dark brown above and lighter beneath, strongly marked with dusky cross-bars anteriorly, and whitish ones posteriorly, and also a white bar across outer wing primaries. He is pre-eminently a bird of the woods. It is as difficult to describe his inimitable and brilliant song as it is that of the bobolink; the notes are so rapid and rippling, accelerating and diminishing, all clear and fife-like, and as liquid as the notes of the song sparrow.

The song commences with a tinkling, wavering prelude, increasing in fervor, half whistle, half warble, interspersed with trills of exquisite sweetness. Burroughs says, "The winter wren is a marvelous songster, in speaking of whom it is difficult to avoid superlatives. He possesses the fluency and copiousness for which the wrens are noted, and besides these qualities, and what is rarely found in conjunction with them, a wild, sweet rhythmical cadence that holds you entranced.

"His strain is rapid and gushing, and touched with a wild sylvan plaintiveness; his voice fills the dim aisles of the forest as if aided by some marvelous sounding-board. Indeed, the song is very strong for so small a bird, and unites in a remarkable degree brilliancy and plaintiveness. I think of a tremulous vibrating tongue of silver."

I shall never forget the first time I heard this remarkable singer. I was making my way through an intricate swamp of cedars and hemlocks near Millgrove,

in search of the showy lady's slipper, which grew in this locality. Suddenly a gush of tender melody broke the stillness of the place, and held me spellbound by its magic strain. I followed the sound through bushes and brambles, over fallen logs and treacherous bogs, stopping occasionally to take breath and to listen to the oft-repeated song. Presently, only a few yards away, the little bird dropped down from a higher to a lower projection of the root of an upturned tree, and with flutter of wings and vibrating body, continued his song.

During an hour that I remained in the vicinity, he sang almost continually, often moving from place to place, and all the time apparently courting attention, much in the manner of the house wren. Probably he had a nest and mate near by, but I failed to find them. I am confident these wrens breed in this vicinity, as I have often found them in pairs and heard them sing in this immediate place during the months of May, June and July, and for several years in succession.

With the exception of the thrushes, I could better spare any other vocalist of the woods. He delights me in such out of the way places, and in haunts to most unknown. When I persuade a doubting friend to go with me to his retreats, he is quite sure to reward my faith by making his appearance, and always with harp tuned for music. It is a curious phenomenon that when we have discovered something for which we have longed and searched, how frequently the object appears to us afterwards. So, too, objects rare to most people appear

everywhere to others. No one more fully appreciates this than the naturalist.

One person can gather quantities of arbutus in woods where others affirm that no arbutus grows.

Thoreau could, in any field, find his Indian arrow. Langille has only to cross a vacant lot in the city, even in winter, to see a shore lark, and very likely to find its nest half covered with snow. David F. Day finds the pinguicula on almost inaccessible rocks that look verdureless to others. My friend, J. F. Cowell, has only to step upon the grass to find an interesting adventitious plant never seen in the locality by others. This wren is my Indian arrow—my pinguicula, and its voice often adds a charm to my rambles in the heavier woods. I remember one wild romantic glen, near Portage Falls. A cool stream runs through it, and tall hemlocks and pines grow thick along its sides, entwining their boughs with those of the chesnuts and beeches. The arbutus and Mitchella carpet, the steep banks whose summits are crowned with the more showy, though not less fragrant azalia. Here, too, grows in great abundance the beautiful little flowery wintergreen, with its roseate hues and curiously shaped blossoms. The place always seems such a fitting retreat for my favorite little musical hermit, that I never visit it without feeling almost certain that I shall hear him there. Last summer as I occupied a favorite seat on a mossy log well up the glen, talking with a companion about the bird, and expressing the wish that we might hear him, sure enough, almost as by magic, the clear, sweet and never-to-be-mistaken notes

fell on the long expectant ear, and my friend, no longer doubting, listened in amazement and delight. This glen, always charming, will henceforth have a new attraction, for unless prevented by some mishap, the bird will be sure to return to this locality, as the wrens are possessed with feelings of strong local attachment.

The golden-crowned wrens (*Regulus satrapa*) and the ruby-crowned (*R. calendulus*), although called wrens, belong to the sylvidæ family, only sparingly represented in the State, but abundant in the old world, where they have entered much into the quaint legendary literature in some of the countries.

The two common species, generally called kinglets, are very small creatures, weighing only the fraction of an ounce each, and, like their cousins, they are bright, active and quite musical. His plumage is rich and marked, olive above, lighter underneath, wings well barred with white and edged with yellow. The bill and feet are dark. The two species resemble each other very closely, except the markings on the head, from which they derive their names.

The ruby-crowned has a patch of scarlet on the head, sometimes almost concealed by other feathers.

The golden-crowned has a bright scarlet patch bounded by yellow, giving the pretty creature a jaunty military air.

During the migrations the two species are very abundant here; they come early, generally before the leaves start to open, and often remain several days, a few even spending the summer here in favored woods;

when they are migrating, the golden-crowned do not sing, but have almost a constant chirp, much resembling that of the red-headed chipping bird; but in summer, at nesting time, the golden-crowned has a delightful song, fine and far-reaching, verging on the plaintive, but very sweet.

All the wrens are useful. They are the friends of husbandry and horticulture, being entirely insectivorous in their habits. They delight us with their beauty, their cheerfulness and their sweet songs. Their virtues are all positive. They are harmless, neither driving away other birds nor destroying anything useful to man. If people had shown them half the favors they have shown the querulous, scolding, pugilistic, unmusical and nearly useless English sparrow by preserving them from harm, and providing them with nesting places, we might now have the house wrens, at least, in abundance about our premises, objects of interest, and also sources of profit.

TREES AND TREES.

"I have written many verses, but the poems I have produced are the trees I planted on the hillside which overlooked the broad meadows, scalloped and rounded at their edges by the Simeon's Houstanic. Nature finds rhymes for them in the recurring measures of the seasons; winter strips them of their ornaments, and gives them, as it were, in prose translation, and summer reclothes them in all the splendid phrases of their leafy language. What are these maples and beeches and birches but odes and idyls and madrigals? What are these pines and firs and spruces but holy hymns, too solemn for the many-hued raiment of their gay deciduous neighbors. It is enough to know that when we plant a tree we are doing what we can to make our planet a more wholesome and a happier dwelling-place for those who come after us, if not for ourselves."

OLIVER WENDELL HOLMES.

TREES AND TREES.

Trees, like the rocks, have written the history of the ages; they are also their own chronologists, and some now standing have, during a period of ninety generations of men, marked off each year in their own great bodies more legibly than it could have been written in a book. The tree is the most highly organized of plant bodies; it possesses greater longevity and attains larger dimensions than any other object; but great age does not impair its usefulness, nor size mar its symmetry of proportion. It is a thing of grace and beauty from the time, as a plantlet, it strikes its little radicle into the earth in search of sustenance, and lifts the delicate plumule from its cotyledonous bed to live a life in air and sunshine.

No other object combines use and beauty in such infinite proportion. It furnishes us fuel and yields us food; it shelters man and beast from wind and storm, and shields them from the rays of the noonday sun. In all ages it has furnished the chief material for building and adorning men's homes, as it also enters largely into nearly all the industries of civilization; and yet, with all its manifold uses, we love it better for its beauty's sake and for the pleasant associations that so often cluster

about it. It may be only the old apple tree standing near the cottage door, scattering its blossoms over the threshold in spring-time, and later dropping the mellow fruit in the well-trodden pathway; or, perhaps, the group of elms and maples that throw their shadows across the dooryard lawn, and through whose canopy of green leaves children have watched the stars. Like hills and mountains, the presence of trees stimulates the affections, brightens the fancy, kindles the imagination, and increases the love of home and country. Few poets are found in a treeless country, and most of the old homes that have been kept in the same family, generation after generation, are those to which trees have added their greatest charm.

You go to the woods even for the full enjoyment of the physical senses—smell, and sight, and sound. There the strong health-giving breath of the conifera is mingled with the delicate, sweet odor of the violet and arbutus; there only can you look into the blue eyes of the Hepatica or find the rose-tinted flowering winter-green and the white and pink blossoms of the Mitchella —little flowers that fill the mind with an exquisite and unspeakable pleasure. In no other place will you hear in their perfection the sweetest of all music, the songs of the wood and hermit thrushes and the wild vibrating lyric of the winter wren. Nectar and ambrosia, drink and food of the gods, were supposed to be products of the woods.

To the student naturalist, trees are especially interesting, as they contain the elements of many sciences.

Biology, botany, chemistry and the laws of light, heat and color can be studied in their growth and structure; and he who enters this gateway of investigation will find a new and charmed land before him—it may be a wonder-land—but the first step taken will lead to the desire to explore the whole magic domain. As he looks upon that well-proportioned trunk towering into cloud-land, with its wide spreading branches crowned with millions of shining leaves, he will wish to know how these have been silently gathered, atom by atom, from chaotic inorganic matter and so perfectly arranged and so exquisitely painted—how the cells of root, stem and leaf are formed—the material that enters into their composition—how they multiply and divide and arrange themselves like a big army of little workers to build up the huge citadel and to provide for the perpetuation of its kind. He will wish to know how the millions of root mouths suck the food from the earth and send it so far through such myriads of circling channels to the leaves for digestion and assimilation—how the tree breathes through its countless stomata, leaf-mouths, exhaling oxygen and inhaling carbon in sunlight, and reversing the process in the dark. He will wish to know why alternate leaves arrange themselves spirally on the stem with mathematical exactness; why the root seeks darkness and the stem the light, and why leaves are attracted strongly toward the blue and violet rays of light, while the yellow rays assist more in their development and growth.

Some of these questions may be answered by study and experiment, while others the most scientific research has failed to solve. The chemist can make the analysis, but the synthesis which the tree has made surpasses his ability to perform.

The most interesting problem in connection with this study, and one perhaps the most diversely explained, is the manner in which the fluids circulate or move from one part of the tree to another; but whether by expansion, contraction, capillary attraction, endosmose, osmose or permeation, experiment and observation teach that most of the crude sap taken up from the earth by the roots, after depositing some of its earthy matter in the cells to thicken their walls, and taking in return granules of chlorophyl, is carried by the pleurenchyma, parenchyma and duct cells to the extremities of the stem or branches, there to nourish buds, leaves, flowers and fruit, while the food, principally carbon, taken from the air by the leaves, together with portions of vitalized sap, is carried downward and deposited in the cambium layer to form the new outer rim of wood and the inner rim of bark; thus showing, if there is not a complete circulation of fluid, there is at least an upward flow through one set of vessels, and a downward flow through other channels. In connection with the respiration and absorption of carbon by the leaves, how far they act as capillaries in changing the fluids from one set of cells to another is yet unknown, but there is little doubt that the principal work of the foliage is to build up the wood, while the root sap nourishes the foliage.

Trees occupy a prominent place in the literature of all ages, and especially in the pleasing myths handed down to us by Hessiod, Homer, Ovid and Virgil, and a partial acquaintance of this literature is absolutely necessary to the full enjoyment and understanding of most fanciful writings of our standard authors.

One cannot but admire the reverence with which the ancient Greeks and Romans regarded the trees, endowing them as they did with attributes half human, half divine. They believed that many of them held enshrined within their woody bark sylvan deities, whose lives were darkened when the tree was felled. These Dryads and Hamadryads animated every part of the trees from root to smallest spray of limb, investing them with life and beauty, feeling and intelligence. It was these bright creatures that shuddered and moaned in the storm or softly sighed in the gentle breeze. They shivered and grew pale at the approach of cold, but became glad in the spring-time, and their joyous laughter rippled out in shining, fluttering leaves and bright blossoms. These woodland deities regarded with favor those who treated them kindly, but often meted out punishment to such as did them violence, as in cases of Rhecus and Erisicthon. The former, seeing an oak about to fall, propped it up and stayed it in its place, and the grateful nymph inhabiting it rewarded the generous deed by granting the fulfillment of any wish which he might make. Erisicthon was famous for "lifting up the axe against trees," and despoiling forests; he regarded neither the use nor the beauty of trees, and even felled

the Deoian oak that stood in the grove sacred to Ceres. It is said of this famous oak that it towered above the other trees as loftily as the other trees towered above the grass, and that it was a woods in itself. When the Dryads remonstrated with Erisicthon, he boasted that he would fell the tree even if it were the goddess herself. While the old oak shuddered at the last stroke given it, a voice issued from the trunk, saying: "I, a nymph most pleasing to Ceres, am beneath this wood and dying, rejoice at the punishment which will be meted out to thee." The goddess destined him to be tortured by famine, famine so dire and terrible that he was finally compelled to eat portions of his own miserable body trying to appease his hunger. In that olden time of myths people and nymphs were transformed to trees, sometimes at their own requests, but oftener for in some manner offending other deities. The Heliads, children of the sun, were changed to poplars; Altis to a pine; the mother of Adonis to a myrrh tree; an Apulion shepherd, who mocked the nymphs, was transformed to an olive tree, and his tears became bitter berries. The fair virgin Daphne, at her own request became a laurel, that she might escape from her lover god, Apollo, who was in pursuit of her. The beautiful Dryope was transformed to a lotus tree for unwittingly plucking a blossom from a shrub in which was enshrined the nymph Lotus. A juster doom met the Eonian women, who, turning to flee after murdering Orpheus, found their flight checked by the rapid lengthening of their toes. Soon their feet became rooted to the ground, their flesh

turned to woody fibre, their hair and hands changed to leaves and branches, and a thick and rugged bark enclosed their shuddering forms. The most interesting of these pretty mythological metamorphoses is related of Baucis and Philemon. This good old couple, although unaware of the greatness of their guests, entertained Jupiter and Mercury very hospitably of their frugal fare, and as a reward two wishes were granted them—one to be the keepers of the temple which had arisen on the site of their humble cottage; the other, to die together, at the same hour and in the same manner. So when fullness of years had dimmed their eyes they were changed to trees, the one to a grand and spreading oak, the other to a tall and graceful linden tree. For many ages they grew side by side, intermingling and intertwining their roots and branches as tenderly and lovingly as they had lived their sweet and simple lives.

We are told that in the olden times, trees walked and talked as well as thought, and were attracted by the power of music. When Apollo and Orpheus played the harp the trees and cattle came together and crowded about them, trembling with the emotions which the sweet sounds awakened. Says Ovid: "There was a hill, and upon the hill a most level space of a plain, which the blades of grass made green; all shade was wanting in the spot. After the bard, sprung from the gods, had seated himself in this place and touched the strings, a shade came over the spot. The tree of Chaonia was not absent, nor the groves of the Heliades, nor the mast tree with its lofty branches, nor the tender

lime tree, nor yet the beech and the virgin laurel, and the brittle hazel and the oak adapted for making spears, and the fir with knots, and the holm bending beneath its acorns, and the genial plane tree and the parti-colored maple, and the tine tree with its azure berries; you, too, the ivy tree with your creeping tendrils, and the elms clothed with vines; the ashes too, and the pitch trees and the bending palms, the reward of the conqueror; the pine with its tufted foliage and bristling at the top, pleasing to the mother of the gods. Such a grove of trees had the bard attracted round him, and he sat in the midst of an assembly of wild beasts and a multitude of birds."

One of the famous oracles consulted by the priests was the Talking Oak of Dodona. It possessed miraculous power. A staff cut from one of its branches always guided the traveler in paths of safety, and conducted him to desired havens. Mercury's wonderful cane must have come from the tree, and it is related that the vessel in which Jason went in search of the Golden Fleece had her figure-head carved from a portion of one of its branches, and the success of the voyage was thereby assured.

Some of the groves were sacred to the celestial gods and others to lesser deities. The forest of Mount Ida, the foster home of Jupiter, was one of these sacred groves. The trees here were proof against the elements, and vessels built from the timbers could withstand the winds and the waves of the sea, and even the wrath of Neptune was unable to harm the mariner in these crafts.

Virgil tells us that Eneas was allowed to build his ships of the pines from this forest, and that when the Latians attempted to burn them before Italy, Venus changed them to nymphs, and they sailed away into the air.

At the marriage of Jupiter and Juno the most noted gift to the bride was a tree laden with golden fruit. Many people have regarded the oak as sacred. The Druids offered sacrifices in oak groves, and consulted these trees in their worships; hence, perhaps, the name Quercus, from *quero*, to seek.

If we may believe the poets who wrote of these things, trees occupy no inconspicuous place in the land of spirits. When Dante and Virgil crossed the river Styx, they found tangled and matted forests of brown foliaged trees, each tree a living spirit undergoing penance for crimes committed against self, and although it was the lightest form of punishment in all these "circles" of misery, yet lamentations were issuing from them. Dante says: "We had put ourselves within a wood that was not marked by any path whatever; not foliage green, but of a dusky color; not branches smooth, but gnarled and intermingled. Therefore the Master said: 'If thou break off some little spray from any of these trees, the thought thou hast will wholly be made vain.' Then stretched I forth my hand a little forward and plucked a branchlet off from a great thorn, and the trunks cried: 'Why dost thou mangle me? why dost thou rend me? hast thou no pity whatsoever? Men once we were, now changed to trees.'" But as they ascended up through Purgatorio to Paradiso they

found wondrous trees, some filled with fruit and bearing sweet incense. Of one of these he says:

"Even as a fir tapers upward from bough to bough,
So downardly did that.
I think in order that no one it might climb;
The while among the verdant leaves
Mine eyes I riveted as he is wont to do
Who spends the day in watching little birds"

When Eneas wished to descend to the realms of Pluto to consult his father Anchises, the Sybil directed him to propitiate Proserpine by the gift of a golden branch cut from a tree in a grove sacred to Diana and Apollo.

Arriving at the Elysian fields after passing the Plutonian region of darkness and desolation, he saw multitudes of the blessed reclining in the shade of wide spreading trees, and the hillsides and the plains were adorned with beautiful groves, in which Greeks and Trojans pursued their games. Not only the golden streets and a river of life make beautiful the New Jerusalem, but we read in Revelations, "In the midst of the street of it, and on either side of the river was the tree of life which bore twelve manner of fruits and yielded her fruit every month; and the leaves of the tree were for the healing of the nation."

This reverential and tender regard for trees has been implanted in the minds of all imaginative people, ancient and modern, sacred and profane; the pure pleasure derived from their contemplation is peculiarly a part of the poet's dower.

The bards of Israel sing of the cedars of Lebanon and use them as symbols of strength, grandeur, beauty and grace. David was particularly partial to the cedar, and history relates that his dwelling was built entirely of this exquisite wood, which was presented to him by Hiram, King of Tyre. Moses, in laying down the law to the children of Israel before crossing the Jordan, said: "When thou shalt besiege a city a long time in making war against it, thou shalt not destroy the trees thereof by forcing an axe against them; and thou shalt not cut them down to employ them in the siege." Shakespeare greatly admired the pine that towered above other trees as his genius did above that of other men; the wind playing through its needle leaves was not to him, as to most people, a mournful monody, but an anthem of inspiration. Coleridge was partial to the graceful birch, and called it "The Lady of the Woods." Bryant loved best the apple tree, with its blossoms as beautiful and fragrant as those of the rose, which belongs to the same natural order, while Whittier and Longfellow never weary of singing the praises of our own incomparable sugar maple. Thoreau, whose heart lay very close to the great heart of nature, was a devoted worshiper at their shrines, and when he would reinvigorate his flagging physical and mental powers he walked for a day in the beautiful groves of Concord or sought a month's seclusion in the primitive forests of Maine. He sympathized with their sylvan spirits, and communed with them as the devout do with celestial deities. He looked upon the wanton destruction of a tree or a forest

as a sacrilege, and "thanked God that these choppers were not able to cut down the clouds." In speaking of the destruction of the pine forests, he says: "Strange that so few men ever come to the woods to see how the pine lives and spires, lifting its evergreen arms to the light to see its living success. Most men are content to see the broad boards and sticks of timber brought to market, deeming that the tree's success; but a dead pine cut down is no more a pine than a dead carcass is a man. It is not the lumberman, who stands nearest the tree, understands it best and loves it most; it is not he who has bought the stumpage on which it stands, and who must cut into it to find if its heart be sound. All the trees shudder when that man steps on the forest floor. No, no; it is the poet who makes the truest use of the tree; he does not fondle it with an axe, nor tickle it with a saw, nor stroke it with a plane; he loves it as he does his living friends and lets it stand. It is the living spirit of the tree with which I sympathize. It may be as immortal as I am, and perchance will go to as high a heaven, there to tower above me still."

Perhaps no naturalist was more highly endowed with the poetic imagination or held closer communion with the living spirit of nature than Wilson Flagg. By streams and rocks, in fields and woods, the exquisite unseen beings, seen only by the mind's eye of the poet, kept him delightful company. Concerning one of his favorite resorts, a wild sequestered nook not yet spoiled by art, he says: "Every one who visited it felt inspired with a mysterious sense of cheerfulness and pensive

delight that could hardly be explained. It became evident at last that these groves and pastures must be the residence of the rural deities, who by their invisible presence inspired every heart with those delightful sentiments which, though not entirely unfelt on earth, are well known in paradise. It was the presence of these deities that yielded the place its mysterious charm. It was the naiad who gave romantic melody to the fountain that bubbled up from the mossy glen in the hillside, and spread the hue of beauty over the solitary lake in the valley; and the dryads, or wood nymphs, that caused these woodland arbors to rival the green retreats of Elysium."

In England, almost alone of the older settled countries, large areas of woods remain, the prominent features in the fair landscape scenery. There, not only the forests, but many of the individual trees are intimately associated with the history of the past as they are with the myths and legends of the country. How many clannish feuds and kingly quarrels have the dryads of these gnarled and patriarchal old trees witnessed, some of them reaching back into the distant centuries. The ancestral tree is as much an object of interest as the cottage or old manor hall that it shadows, and is equally a sharer in the owner's regard. Among these are the Great Oak, Major Oak, Oak of Parliament, the Swilcar Oak of Needwood upwards of six hundred years old, and the Royal Oak, in which Charles II. secreted himself after his defeat at Worcester. The Spread Oak of Thoresby is a woods in itself, and would give shelter to

a regiment of men. The Greendale Oak of Welbeck probably takes the priority in age, and is supposed to be 1,500 years old. Herne's Oak, where the wood goblin had his haunts and about which "the fairies danced with twenty glow worms for their lamps," when they played the game against Falstaff for his evil desire, was blown down a few years ago. There have been good Rhecuses to look after some of these trees, who have banded and riveted and propped them up to stay them against decay and storm. England may well hold in high esteem her trees, especially her noble oaks, as she is indebted to them in a large degree for her supremacy on the sea.

As the wealth of a country increases, people have more leisure for the cultivation and enjoyment of æsthetic tastes, and the old homesteads with their wooded surroundings become dearer in the eyes of each successive generation, and many an old oak or maple or elm on the premises is looked upon with the same reverence as the family monument in the burying ground. This feeling is becoming more general too in communities, especially in our eastern cities. With what scrupulous care the people of Boston guard the old trees on the commons!

When the old Charter Oak at Hartford was blown down a few years since, many of the inhabitants of the place were really in mourning, and the band, wearing badges of grief, marched through the city, and during the afternoon played sad music over the prostrate old weather-beaten land-mark of the past.

This country has been favored above all others in the natural variety and abundance of useful and ornamental trees, and had farmers and lumbermen shown due wisdom and foresight in their treatment of the forests, using only such timber as their necessities required, and clearing such portions as were needed for tillage, leaving larger and more frequent areas uncut, especially on steep hillsides, along all water courses, shores of lakes, banks of rivers, smaller streams, and along all highways, the enjoyment of magnificent landscapes, of shade and shelter from winds, would have been cause for future generations to bless the memory of their ancestors. Instead, this generosity of nature has been met by man's most lavish and destructive spirit. A ceaseless war has been waged on our pine forests, more destructive than that upon the Indians. Not only have the trees been used for proper purposes, but the speculating lumbermen have swept over millions of acres, denuding them of their priceless products, and oftentimes ruining themselves at the same time they despoiled God's fair country. The valuable groves of black walnut have nearly all been felled, and their huge trunks cut into logs and hurried to the jaws of the mills, as though their presence were hateful in the sight of their owners. Hardly a tree of the beautiful black cherry remains in the Eastern States. The bass-wood and white-wood are rapidly following. The red beech, chestnut and white ash have been split into rails or burned as fuel. The cedars have been made into pails and fence posts, until

hardly enough of the fragrant wood remains to encase the lead of pencils. The hemlocks standing with their bald, uncovered heads, or pointing their evergreen tapering spires heavenward, would seem to be pleading for a little respite from axe and saw and devouring flame; but no mercy was shown them. They have been destroyed in season and out of season, in every conceivable manner and for every conceivable purpose. Countless numbers of them have been felled merely for their bark, as many a desolated old "bark peeling" district will show; while the maples, the patricians of the forests, in their vernal vesture delicate as the first wild blossoms that nestle at their root, and in their autumnal foliage flaming up like the cardinal flowers—trees whose wood is fit for so many practical and beautiful uses—have been subject to still worse treatment. After having their sweet blood extracted year after year, until there was no place on their scarred bodies where the sugar makers could tap them more, they have been chopped into firewood, and charred in coal pits and burned in log heaps, until the beautiful and profitable sugar orchards that once adorned so many pleasant hillsides in New York and New England are now only shown by blackened stumps and straggling underbrush, young pollards struggling for existence out of the graves of their ancestors.

When we return to the rural homes of our earlier years, how our hearts go out to meet the pleasant groves and shaded byways that helped to make that olden time

such a charmed existence. Our eyes seek the old sugar bush on the hillside, the maple groves in the pasture fields, the wild cherry trees in the meadow, and the wide spreading elms that stood sentinels at the gateways. Fortunate, indeed, if these "landmarks and lovemarks" are still standing, but oftener we find them swept away. Some Erisicthon in the guise of the "model farmer" could not tolerate mere objects of beauty where they stood against the bank account. There were dollars' worth of cord-wood in the maples; the cherry tree shaded valuable grass land; children, when they came in the later summer time to gather cherries, trampled down the aftermath; and the elms obscured the view of the new house. And what are landscapes and sentiments and affections in comparison with gratified pride and accumulated dollars? If sentiment and love of scenery have no influence in restraining our people from this prodigal waste of forests, at least a regard for the physical condition and welfare of the country should cause them to pause and ask themselves what will be the final and near consequence of this almost total extinction of our forests. Great freshets and inundations, bare hills still farther disfigured by unsightly gullies, extended droughts and dried-up vegetation, a loss of equilibrium of climate, seasons of extreme heat quickly followed by intense cold, violent and destructive storms, a scarcity of insect-destroying birds, and thereby a great increase of pestiferous insects that annoy man and prey upon the products of his industry, a drying up of

springs and running streams that move machinery and assist commerce, a scarcity of timber for building and other manufacturing purposes—these and many other equally calamitous effects must assuredly ensue unless the senseless and extravagant waste is soon checked.

INTELLIGENCE IN BIRDS.

Ask the fowls of the air and they shall tell you.

JOB.

We should go to the ornithologist with a new feeling, if he could teach us what the social birds say when they sit in the autumn council talking together in the trees. The want of sympathy makes his record a dull dictionary. His result is a dead bird. The bird is not in its ounces and inches, but in its relations to nature; and the skin or skeleton you show me is no more a heron than a heap of ashes or a bottle of gases into which his body has been reduced is Dante or Washington.

EMERSON.

INTELLIGENCE IN BIRDS.

At the present time, mere structure, anatomy and classification in the study of natural history are engaging less attention than those higher phases or problems of the science, natural dependence, modification, manner of life and animal psychology. The advanced botanist turns his attention to the consideration of the fertilization of the plants or flowers, the origin of their parts, color, perfume, and the wonderful devices for their perpetuation and increase. The entomologist, to the uses of the insects in the economy of nature; while those pursuing their investigations in the higher branches of zoology are most interested in the phenomena of mind or animal intelligence. Especially is this true in the study of ornithology. Nearly all our native birds have been identified and described; little more can be accomplished in this direction, and the man who shoots a thousand birds for anatomical or technical examination learns less than he who carefully studies the habits and thoroughly learns the song of one.

Intelligent people no longer attribute the sagacity so often displayed by many animals to mere instinct; they understand that all creatures are in possession of a certain amount of mental or deliberative faculties, and are

capable to some extent of reasoning from "cause to consequence;" that this intelligence differs only in degree among the lower, as well as among the higher animals; that the emotional natures are very nearly the same in all, differing only in intensity, and that the virtues and passions of hope, love, sympathy, fear, hatred, jealousy, resentment and revenge spring from the exercise of reasoning faculties equally among all classes of animals, high and low in the scale of being. Lower animals may not solve problems in mathematics or puzzle their heads over questions of ethics and jurisprudence, but the same display of deliberation and forethought is manifested when the migrating fowls arrange the manner of flight under the direction of a chosen leader, and the feeding flocks set sentinels to watch for enemies and to warn of danger, that is shown by men in the organization of armies, and the arrangements to ensure safety by sending out sentries and picket guard.

In eating, drinking, caring for young, and trying to escape from apparent danger, the animal simply obeys the laws of instinct, but, when it finds by experience and change in surroundings, or by any extraneous circumstances, a change in the mode of life practical and beneficial, and so departs from the usual custom of its kind to better its condition, it has passed beyond mere instinctive impulse. It is no more the impulse of instinct that causes the yellow-bellied woodpecker (*Sphyrapicus varius*) to bore the sound tree for sap, than it is that causes the farmer to tap the maple in the spring. The bird has ascertained that the fluid is sweet and

delectable, and that it will also attract insects. The farmer has found by experience that it will make sugar. The bird knows as well as the man from what trees and at what seasons it will run, and he generally bores the evergreen in winter, the maple and silver birch in March and April, and the yellow birch a month later, just when the fluids of these trees flow most freely.

Although appearing on the earth in some of their primitive forms and conditions, at an earlier period than some of the quadrupeds, yet the birds undoubtedly in many respects rank first among the lower animals in organization and intelligence. They have the largest brain in comparison with the other parts of the body, it being in some species one-sixteenth part of the entire weight. Their powers of locomotion are superior to any other class of vertebrates. They have the largest breathing capacity and the most rapid respiration. An English scientist says: "This rapid movement of the heart necessitates a rapid circulation of blood through the brain: and this means a more hurried flow of consciousness, a more rapid succession of ideas. In a given time the swallow moves more, breathes more, and therefore probably feels and lives more than any other living animal." Certainly no other beings manifest such acute suffering at the destruction of their mate or young, or show such a whirlwind of ecstasy as many of the little fluttering warblers do in some of their wild bursts of song.

Birds alone of all the lower animals use, like man, the tongue as the principal organ of sound or speech:

above all other creatures are they gifted with voice both in respect to quantity and quality. The little quavering sparrow (*Spizella pusilla*) can be heard half a mile away; the simple strain of the veery (*Turdus fuscesens*), though of such exquisite sweetness, reaches the ear twice this distance, while the Campenero is said to send its clear bell-like voice to the distance of five or six miles. Few sounds of the feathered tribe are harsh or discordant: nearly all of their utterances are pleasing; many of their songs are pure melody; certainly nothing can surpass in clear liquid sweetness the notes of some of the song birds. The highest praise awarded to Jenny Lind, the finest singer ever known, was that "she could warble like a bird." Byron, with his critical appreciation of all harmonies, gives as the superlative of sweet sounds, "The hum of bees, the voice of girls, the song of birds."

Some of the physical senses are strong and active in the feathered tribe, and especially the æsthetic element in the sense of seeing and hearing.

Birds have a very keen perception of color, and some species appear to receive as pure pleasure from its gratification as man himself. Undoubtedly we are as much indebted to the indulgence of this taste in birds, for the high color of some of our fruits, as we are to the bees and other insects for the bright colors of most of our entomophalous flowers. In choosing their mates those of the most brilliant plumage are first selected. The most highly colored fruits and berries are first taken, though other specimens may be equally mellow, sweet

and juicy. The humming birds avoid the neutral tinted flowers, though equally provided with honey nectaries, and seek those of brilliant dyes. Some of the vireos ornament the outside of their nests with patches of cocoons, spider-webs and other bits of delicate white substances, thus giving the well-built structure a very neat and unique appearance. The humming birds often use bits of moss, with which they cover the entire exterior of the nest, arranging all the pieces in the most artistic and ingenious manner. There certainly is a motive for this extra labor: it is either for protection or attraction; for concealment or ornamentation. We might attribute it to the former purpose were it not that often the moss is intertwined with beautiful and showy feathers, so arranged as to make the structure still more conspicuous, especially if it is placed well out of the reach of all danger.

Mr. Gould, the naturalist, tells us that bower birds of New South Wales, at mating times, build play houses and deck them with variegated materials, especially glittering substances. The males vie with one another in this work of ornamentation, plainly exhibiting pride and emulation in their artistic labors. In these ornate houses the loving pairs disport themselves with every exhibition of satisfaction and delight. These accounts are corroborated by many other reliable writers: some of the incidents related of these wonderful birds are as marvelous and as interesting as the history of the Lilliputians.

Many of the feathered tribe manifest real pleasure at the execution of simple harmonies. They enjoy the

notes of musical instruments, but more especially their own songs and those of one another. The pleasing myth that "the birds came in great flocks to listen to the delightful strains of Orpheus' lute" savors more of fact than many other things handed down as truths in ancient history. Our unmusical English sparrow enjoys the songs of other birds: on different occasions I have seen several of them gather about a robin as he caroled a pleasing song: when they came too near or in too large numbers he would dart at them and drive them out of the tree, but when he commenced again to sing, some of them were quite sure to return. A friend sends me an account of a bobolink, that, placed in a cage with some canaries, exhibited great delight at their songs. He did not sing himself, but with a peculiar 'cluck' could always set the canaries singing. After a while he began to learn their songs, note by note, and in the course of a few weeks mastered the entire song. Then he commenced to lead the choir, and kept the others going much of the time.

Even the prosaic goose, an animal ridiculed in literature and the butt for flippant jokes, but really a very intelligent fowl, and capable of forming the strongest attachment to even man himself, is fond of music, and a lively air on a violin will sometimes set a whole flock wild with delight. On one occasion, at a country wedding, I was witness to a curious performance by one of these animals. After dinner a lady entertained the guests assembled on the lawn with music from an accordion. A flock of geese were feeding in the road just

below the house, and with outstretched necks answered back loud notes of satisfaction. Soon a white gander commenced dancing a lively jig, keeping good time to the music: for several minutes he kept up the performance, to the great delight of the company. The experiment was tried several times during each day for a week or more, and the tones of the accordion never failed to set the old gander into a lively dance. Birds are the most generous of animals, often dividing their scanty substance with others in greater need. Some of the lazy Mexicans take advantage of this noble trait in the pelicans, to obtain their own food by a process more cruel than robbery. They maim some of these birds and tie them up to trees without food: hunger causes the poor animals to cry for assistance and their freed companions, far more human in nature than these Mexicans, which seem to be only human in form, bring fish from the neighboring waters to relieve their suffering companions. The men lying in wait fall upon these new-comers and make them disgorge the fish, and without mercy themselves again send the pelicans on their errands of mercy.

Who has not seen the old chanticleer of the farmyard call about him his harem and their numerous progeny, and give them the last morsel of the food which he had found. What affection and solicitude nearly all birds show for their mates and young, often sacrificing life and liberty in their defense!

Many of them chose their mates for life. Sorrow at the death of one often causes the death of the other.

The mother bird has been known to die at the destruction of her nest of young. Even in confinement many of them show the strongest attachment to those who feed and take care of them.

Many birds not only show great sagacity in the manner of obtaining their food, but also in the manner of preparing it. Sometimes, when it is too dry to be eaten, they will moisten it in water; if too hard to be broken by the usual process of the beak, they will fly high in the air and let it fall on a rock or the hard ground, if necessary repeating the experiment several times. In building their nests they often exhibit great cunning in the curious devices to escape detection. Those that make excavations in stubs and trees are careful to remove all chips from the premises. All the litter of the young of many species is carried away by the parents and deposited at a safe distance from the premises. Their knowledge of color also enables them to seek places and materials for their nests harmonizing with the general plumage of the sitting bird, thus more easily escaping detection by preying enemies. Swallows that build well out of reach take no such precautions, neither do orioles and other birds that make dome-like nests in which the sitting bird and young are sheltered from sight. When the nest is discovered, not less interesting are the cunning devices of the sitting bird to allure away the discoverer. She will often half run or fly, limping and hobbling as though wounded and disabled, apparently an easy prey to the one in pursuit. You reach down to pick her up, but she is just outside your grasp;

after leading you a "wild goose chase," and at a sufficient distance from the nest, how suddenly and easily she flies away out of reach of all danger. This is always the ruse of many of the ground nesters, the sparrows, plovers, whip-poor-will, partridge and many others.

Jane Taylor, in an article on the difference between man and inferior animals, says: "Man has reason, animals only instinct; man makes mistakes, animals never do; animals never make improvements," and continues, "Who ever saw a bird puzzling its head over its unfinished nest?" Had she been an observing naturalist she might on many occasions have seen just this. Birds often find great difficulty in obtaining sufficient materials of which they are most fond, and may have to go a long way to get enough of the soft fabrics with which to finish the nest, thus delaying the completion for several days.

Sometimes the twigs to which it is fastened prove too weak for its support, and then the ingenuity of the birds comes into play to remedy the defect. I have seen them tie two branches together, that were spreading apart, and make them fast to a limb above them and then finish the nest. Within a week I have seen the nest of an oriole canted over by the breaking of a limb caused by high wind; the birds, instead of forsaking the nest, somewhere secured a piece of white tape three or four feet long, and with this fastened the broken branch securely to another limb. Birds that build early in the season, while the weather is cold, make much more substantial nests than those that build later. The chipping

bird hatches its first brood in one of the most artistic little domiciles, substantial and well lined to keep out the cold and wet, but the second and third broods, hatched later in the season when the weather is warm, are put off with a slimsy make-shift of a nest, often so thin and sleezy that one can see the eggs and young through the bottom of it as readily as through a sieve.

The orioles that nest in Pennsylvania do not use half the material that those do which nest in Canada and Northern New York. Old birds in many cases not only make much better nests than the younger ones, but are also much better singers, some of them even adding new bars and strains to their songs. The cow-bunting makes no nest of her own, but deposits an egg in the nest of another bird: this she does surreptitiously and generally as soon as the nest is finished. We all know the ingenuity exercised by some of the little birds thus imposed on, to prevent the incubation of this foreign egg.

The blue-eyed warbler (*Dendroica estiva*), and one or two of the vireos build another department, and wall in the egg of the interloper. So general has become the custom of the bunting to use the nest of the blue-eyed warbler, that the little bird now often makes provision for the emergency when she constructs the nest, by building it deep enough for the two compartments.

Bird migration has always been an interesting problem to naturalists who do not attribute all phenomenal intelligence to natural instinct. It may be called hereditary instinct, learned through accident, perhaps, or acquired by necessity and afterwards transmitted from

one generation to another. Many young birds left to themselves, without example of the older ones, would not go south at the approach of cold weather unless by accident. Those hatched too late to move with others of their kind often wander about aimlessly until they perish with the cold. Birds that are brought across the ocean from countries where climate does not render a change necessary do not fly south at the approach of winter. The English sparrows survive by their extreme hardiness, otherwise they would perish like other immigrants. The partial failure in the introduction of the skylarks into this country is due solely to the lack of knowledge on the part of the birds concerning the climatic changes. They have not learned the necessity of moving to lower latitudes, and not having the example of their elders, nor the instinct transmitted from ancestors, they remain north in the fall and perish with the cold.

In nothing do the birds display greater sagacity or show more clearly their exercise of reasoning powers than in some of the phases of their migration. It is yet one of the mysteries of nature how they find their way back over a distance of thousands of miles, to the very tree or stump or barn in which they nested the year before. Do they remember familiar objects noted on their southern journey, or do they remember only direction, and, like the honey bee, "strike a bee line" towards their destination? The theory of "widening circles of flight" cannot be true, as this would take them into such extremes of heat and cold as to make it impossible:

the males of several species often arrive a few days earlier than the females. They come to see if the weather and other conditions are favorable for the season's housekeeping. What were the understandings between these couples when the gallants started on their long journeys into the seemingly great unknown? Where and how were they to meet? Was he to return, or was she to follow after a certain time? We only know that unless accident befall one or the other, the pleasant spring days find them together again near their last year's home. That many of the birds *do* return year after year to their old haunts is a fact too well known by those who have observed their habits to require any extended proof. I have known the same pair of robins to make their nest on a beam under a shed during eight or nine consecutive years: how much longer they might have occupied the place is not known, as they returned again to find the shed in ruins, and were obliged to seek other quarters. This pair I could easily identify, as the female bird was partly an albino, having considerable white on the back and in wings and tail. Another robin, that by some mishap had lost a foot, made its appearance in the same yard in the city for two or three years. In many sections perhaps only one barn in half a township will be used by the eave swallows (*Petrochelidon lunifrons*), but the location once selected, the colony will continue to return to it, sometimes for half a century, or until the building tumbles down with age or undergoes extensive repairs: even then stray birds, singly or in pairs, will often be

seen circling over the place, as if loth to leave the old homestead.

A wood thrush returned to the same grove several summers; I knew him from other thrushes by some long peculiar trills between the high and the low parts of the song. These were sweeter and softer and fuller of pure melody than I have ever heard in any other bird. A thousand incidents may be given to illustrate this local attachment and its results, but one more on the present occasion must suffice. On North Street, in an old apple tree in Mr. Gowans' yard, a pair of blue-birds made a nest in the cavity of a decayed limb. A high wind broke off the limb and the little birds, just hatched, fell to the ground. A young girl of the family picked up the fledglings and placed them in an extemporized nest in a basket, which she hung in the piazza near by. Soon the old birds found their young, and fed and hovered them in their nest until they were able to take care of themselves: even after they flew away they came back and remained in the nest several nights. Both the old and young birds were on good terms with the members of the family, and did not take their flight for the south until late in the summer. Early last spring, during the first sunny days of March, the male bird made his appearance on the premises and came into the kitchen for crumbs; he remained nearly a week and disappeared again, but only for a few days, when he returned with his mate to stay. They peered about the old apple tree, and searched for the basket for a nesting place, but finally observing a cavity high up in the

piazza, they made their nest and raised another brood of birds.

There is little danger of speaking extravagantly of the birds. Nothing in nature excels them in beauty of color, elegance of form and grace of motion. They add the greatest charm to the landscape, and fill the world with twitters of gladness and volumes of delicious song. No less are they, than we, God's creatures. A better appreciation of their virtues as well as of their uses, and a truer understanding of their capacity for enjoyment and suffering, will make us more considerate in our conduct towards them, and more tender and humane in our treatment of them.

A DAY IN AN OLD ORCHARD.

What plant we in the apple tree?
Buds, which the breath of summer days
Shall lengthen into leafy sprays;
Boughs, where the thrush with crimson breast
Shall haunt and sing and hide her nest.
A shadow for the noontide hour,
A shelter from the summer's shower.

Sweets for a hundred flowery springs
To load the May wind's restless wings;
A world of blossoms for the bee,
We plant with the old apple tree.

WILLIAM C. BRYANT.

Sentiment and feeling, and what flows from them, constitute a large part of our happiness. It would divest the world of its poetry, its romance, its sweetness to sacrifice all sentiment to a hard theory. We do not live for utility alone.

BISHOP COXE.

A DAY IN AN OLD ORCHARD.

Blessed indeed the members of that family whose house, whether cottage or mansion, stands near an old orchard. They will have beauty, fragrance, fruit, shelter and shade; visitants too, rare and enjoyable, from fields and woods. These old apple trees, emblems of civilization and symbols of man's industry and home comforts, bring much more than fruit to the premises. They bring the bright-winged insects and the singing birds, the squirrels and the mice—inhabitants of the hives, the fields and the woods. They bring children, too, to love them and to be blessed by them, to hunt birds' nests in the branches and build play-houses in their shade, to trample the grass and club the early fruit.

It is not the modern young orchard with branches trimmed and thinned, with the ground kept clear of grass and turf, that best we love. However thrifty and full of promise this young and cultivated orchard may be, like a new house, it lacks the great charm which only time can give. It is the orchard, rather, with its mossy trunks and gnarled and scraggy limbs, with foliage so dense that in many places it has driven out the meadow grass and restored some of the wild things of the primitive woods.

Only an hour's ride on the cars from the city is such an orchard which I frequently visit. When there I partake of the hospitality both of the orchard and its proprietor, and divide with them my time and affection. The owner of this orchard has lived there nearly seventy years; the orchard was planted ten years earlier, and the picturesque log house that ornaments the grounds was built the year before the trees were planted, or eighty-one years ago. The low but roomy house was built upon honor and of good material, as well as upon a pleasant site; there was no shoddy in the timber or in its construction. The straight logs were from the trimmest red beech and rock maple, and they were so nicely fitted to one another by the axe of the deft choppers that when plastered on the outside where they came together no rain nor damp could penetrate the chinks; and the house to-day, after an exposure to sun and rain of more than man's allotted age, stands as firm and sound and as snug and warm as it was when the bride came to live in it so many years ago. It is robed in vines, which are so dense that they have to be put away like curtains from the square windows to let in more light.

The courteous old gentleman is justly proud of this old house, and would not see it replaced by any modern frame or brick building that the most famous architect could plan. He is also proud of the cellar, always filled with apples and barrels of cider, but prouder still of the mammoth trees in the orchard. He frequently calls attention to the one that overhangs the back piazza,

with a trunk measuring nearly ten feet in circumference and branches of corresponding dimensions; and to another near the well that usually yields thirty bushels of apples annually. The first of these has an immense iron rod holding together its two main branches; the other shows here and there a dead limb, notwithstanding its wonderful yield of fruit. Two other trees, standing side by side, so nearly resemble each other in form and height as to remind one of that wonderful pair of trees representing Baucis and Philemon. They are more than fifty feet in height, and lean slightly towards each other, and although the whole orchard is of natural fruit, that of these two trees is exactly alike in color, form and taste. About the middle of May I received this message from the proprietor:

"Come on Friday and you can then stay over until Monday; the trees will be in full bloom, the singing birds are thick as bees, and your favorite cat-bird is here again this spring. He seems to live by singing just as my neighbor's boy does by whistling. What makes lazy boys always whistle their way through the world? There is a nest of young muskrats under the stone bridge in the road opposite the house, and the little fellows show themselves every morning. A little bird resembling the chipping bird in size and color sings in the trees in the pasture the most curious quavering songs; he is a new-comer, I think, in these parts, but you will likely know him. Nearly every night and morning a wood thrush sings in one of the large elms east of the orchard. We have pure milk, sweet grass butter, fresh eggs, and two casks of cider yet untapped in the cellar, and I give you the word of an old captain that no such cider was ever found in the city.

"Yours, T. J. K."

The invitation was duly accepted, and standing in the old orchard after supper, surrounded by such a wealth of beauty and fragrance, with blossoms above and below and falling in showers all around, silently like unostentatious acts of charity, one could fully realize that "blossom week" indeed brings the full fruition of spring's fairest promises.

It is difficult to find adjectives to adequately describe apple trees. They are so beautiful, so useful and so generally distributed. Appearing on the earth about the time that man did, in all temperate climes they have kept pace with his improvement and civilization, and mark his progress in agriculture with sufficient exactness.

Belonging to the highest order in the vegetable kingdom, the *Rosacae*, the apple tree has a flower that is a queen even in that order, equaling the rose itself in color, and excelling it in the delicacy of its fragrance. The tree becomes a bountiful bouquet, the "whole as perfect as each part, and each part as perfect as the whole." You cannot find in any floral hall such a mass of odorous blossoms as some of these trees exhibit, where each separate flower will bear the scrutiny of the microscope. Here a large oval-topped tree presents a double centrifugal manner of inflorescence, the top of it being in full bloom, the middle with only the central or terminal flower fully out, while the lower branches show only pink buds.

The orchard assists in teaching the lesson that objects which yield the greatest pleasure lie nearest our doors; that it is not necessary to make long journeys or to ex-

plore far-off countries to see the most interesting objects in nature. I can find more of interest in Limestone groves, in Wende's woods and meadows and in the vicinity of Portage than I can in the Adirondacks, the wilds of Northern Michigan or the primitive forests of the Carolinas. Even this old orchard of less than a dozen acres has so many charming things growing and living, flowerless and flowering, winged and four-footed in it, that a Gray or a Nuttall would find it a field of delight and study. There are mosses on the north side of the tree trunks and lichens pendant from leafless branches. Tall ferns are growing in a shaded corner of the lot near a rivulet of pure water, and their broad fronds are as green and thrifty as in the shady woods. The jewel weed, with almost transparent stem, and leaves that look like silver, when immersed in water, are abundant and luxuriant.

Dicentras, cardamines, trilliums, anemones, podophyllums, Claytonias, and the beautiful little *Geranium dissectum* grow here. The spikenard (*Auralia racemosa*) is so plentiful that neighbors come to dig the root for medicine; and, later, a troop of boys will be gathering the sweet, juicy and aromatic berries. What a field for the herbal women! such hosts of simples! spearmint, peppermint, catnip, horsemint, hoarhound, pennyroyal, thoroughwort, yarrow, mayweed, smartweed, heartsease, wormwood, tansy, comfrey and burdock. My friend smiles when I ask him to spare a few of the finer burdocks, and replies that "they are the pest of the premises, good for nothing but to keep boys

out of mischief, cutting and uprooting them." He looks still more incredulous when I tell him we have really few prettier flowers in the garden than those of this wholesome, rough-looking, and sometimes troublesome plant. Hulme understood this, and in figuring the flowers of field and garden, has given us the gem of all in the burdock. The chief beauty, perhaps, consists in the exquisite harmony of color in plant and flower, the pink and purple fringe of the latter rivaling that of the attractive flowering wintergreen.

Orchards possess so many attractions for the feathered tribes that some ornithologists have classified the song birds into those of the orchard, field and woods. The old trees afford abundant food of insects and larvæ; they afford wonderful facilities for nesting, and their proximity to the house offers protection from many animals of prey. Nowhere else do I find nests so plentiful as in the apple orchards. Boys who collect eggs have found this out, and the owners have to be watchful to prevent the boys from harrying such premises. Fortunate for the farmers could they more generally become conscious of the beautiful and interesting things that are to be found in their immediate vicinity. Many of them expect only fruit from the trees, when this is only a small part which they might enjoy. During less than two days here I have found nearly thirty nests, among them five robins' nests, four with eggs and one with young birds. When I climbed up to look in this last one the old birds made a great ado, and I could not convince them that my intentions were friendly.

Birds have to guard against so many marauders that it is a wonder that they have any confidence left in man or other animals. One would expect them all to become skeptical pessimists instead of the sunny, confiding creatures which most of them still are.

The pair with the nest in a little evergreen by the fence manifested very little alarm at my approach. The male bird alighted on a rail quite near and watched me without uttering a word of remonstrance. The sitting bird seemed loth to leave the nest, and I even touched her with my hand before she flew off.

Several little chipping birds were already nesting in the orchard, and one could not resist the temptation to look into each beautifully constructed house to admire the little greenish blue eggs so artistically marked with brown and chocolate. A nest in the jasmine, over a front window, occupies the place that one did last year. Just before dusk last evening the wood thrush took his place on one of the elms, and for half an hour or more chanted his divine music. Why does he leave his friends in the maple woods beyond the pasture, half a mile away, and come here each evening to sing? Does he know that such strains are too sweet to be wasted in the woods away from human ears?

Three purple finches have been in the orchard and in close company for several days, two of them singers, though only one of them has the bright plumage; the other is colored almost like the female, gray, with dull penciled lines of white and brown, but with no perceptible bright red. The two males did not sing at all

alike; the bright-colored one sang a loud vivacious strain, while the other's song much resembled that of the warbling vireos. Had the one lost his color by age, or, by lack of age, had he not yet taken it on? A purple finch kept long in confinement will lose his bright plumage and become gray. Last year a pair nested in the orchard and often came about the cottage door with the chippies.

The little brown bird mentioned by my host is the field sparrow (*Spizella pusilla*). He sang much of the time yesterday from a shade tree in the field near the orchard. The song is ecstatic and far-reaching like that of the veery. It is oftenest heard in bushy pastures, or at the edge of a woods, where it will often surprise one with its strange quavering whistle so curiously modulated.

The red-eyed and warbling vireos were singing almost unceasingly in the tall maples in front of the house, the former generally near the top of the trees, and the latter in the lower branches. In the pauses between the songs, one knows they are searching the leaves for food. They are like the cheerful women, who sweeten their household duties with pleasant songs. The warbling vireo pleases you with his quiet low songs of inexpressible sweetness, uttered leisurely, as if but the accompaniment of some pleasant duty.

With the exception of that of the song sparrow, this simple warble is the most cheerful of that of any bird. He comes in April or May, and remains until October, singing at all times of the day in city and country and

in all kinds of weather. This bird has always so delighted me that I often speak of him, and wish everybody to know him for the treasure that he is.

On the side of a knoll, near the little creek, I found the nest of a snow bird, or slate-colored sparrow (*Junco hyemalis*). It was sheltered by a tussock of grass, and like all of these nests, was deep and finely finished. There were four eggs, and, I judged, nearly ready to hatch. This is the fourth nest of the Juncos that I have found this season.

Bobolinks frequently came from the adjoining meadow, and alighting on the trees or fence rattled off their unintelligible though always musical jargon, and then sailed or fluttered back to their mates in the grass. The charm of the orchard is incomplete without their jingle. Two or three orchard orioles were already here—good singers, but seemingly shy and furtive. Their handsome and bolder cousins, the Baltimore orioles, were dividing their time between snatches of songs and calls to one another. Their songs are not satisfactory. There is an unfinished, incompleteness about them; the ear expects something more than it usually gets. These birds, above all others, seem to possess capabilities which they never reach. Masters of loud, clear and liquid notes, they seem content to call and scold and blurt out parts of strains which they never finish. They have learned one thing, however, greatly to their advantage—that is, placing their swinging nests out of reach of most animals of prey, boys not excepted. A half dozen of their last year's nests were still swinging from the

tall elms at the side of the orchard. A solitary cuckoo alighted in the tree nearest the house; he uttered two or three soft, mellow notes, and flew to the woods. A pair nested in the orchard last year.

In a partially dead tree a pair of wakeups, or yellow-hammers, were nesting. They have excavated a hole in a large limb, or rather one part of the tree, as the top of one of the two main branches had broken off, leaving a stub three or four feet in length. The nest was only a little higher than a man's head, and the old gentleman had placed a wooden chair under the tree in order to get a view of the nest. I approached the place noiselessly, and clapping my hand over the opening of the cavity made the sitting bird a prisoner. I gently lifted the beautiful creature to the light; she made no resistance, but the fluttering of her heart spoke her consternation. To have long resisted the pleading of her dark eyes would have been an act of cruelty. If a "bird in the hand is worth two in the bush" it must be a live one, even as an object of scientific study. I detained her only long enough to admire the beautiful umber and bright yellow of her rich plumage, more beautifully penciled than could have been done with brush and pencil by the finest artist. As I opened my hand she flew off, uttering a note of gladness, and rejoined her mate that was anxiously watching her from his perch on the trunk of an adjoining tree. They soon flew off to another part of the lot to talk over the affair and to determine whether it would be safe to ever venture back to the nest again, but they must have become reassured,

for she returned in a few minutes after we left the tree. The five or six white eggs were as smooth as alabaster, resembling fine china, and were in keeping with the beauty of these elegant birds.

Not a rod from the front door of the cottage, and near the curbed well, I accidentally found a nest full of young song sparrows just ready to fly. As I stooped down to look at them, three of the five scampered out under the lilac bushes. It is marvelous that this nest has escaped the cats that are so often prowling about the yard in search of just such tid-bits.

A low, thick thorn bush, surrounded by sweet elder bushes, and overrun with vines, holds the gem of the orchard. A cat-bird had so concealed her nest that I did not see it until the bird fluttered out, almost within reach of my hand. She flew only a few feet away, when the mate, attracted by the disturbance, came still nearer and commenced warbling in the most friendly manner, as if to coax me away from the place. Neither bird uuttered its usual notes of complaint, but one watched anxiously and the other continued his songs with many changes of tunes and attitudes, apparently utterly unconscious that there was any disturbance or danger menacing them. In the nest were four blue-green eggs; not the green of the plants, nor the blue of the sky, but more like a certain deep color of the sea. The fields of nature hold not another such gem as the egg of this thrush; of such exquisite material, so perfect in form, being only "lines of beauty," and a color matchless and indescribable. And then, such a germ

of possibilities within; life, music and flight, only waiting a little more warmth from the mother's breast. There is such an unexplainable charm about a nest of eggs. I confess that I never see a nest of eggs of one of our domestic fowls without a thrill of pleasure. Thomas W. Higginson, in his incomparable "Out Door Papers," says: "I think that if required on pain of death to name instantly the most perfect thing in the universe, I should risk my fate on a bird's egg. There is, first, its exquisite fragility, strong only by the mathematical precision of that form so delicately moulded. Then its range of tints so varied, so subdued, so beautiful, whether of pure white, like the martin's, or pure green; like the robin's, or dotted and mottled into the loveliest of browns; like the red thrush's, or aqua marine with stains of moss agate; like the chipping sparrow's, or blotched with long weird ink marks on a pale ground; like the oriole's, as if it bore inscribed some magic clew to the bird's darting flight and pensile nest. Above all, the associations of this little wonder of winged splendor and celestial melody, coiled in mystery within these tiny walls; it will be as if a pearl opened and an angel sang."

A house wren arrived here only a day or two ago, and has already explored the cavity of a dry limb in which he and his mate had a nest last year. The phebe birds have built on a beam under the shed, and the three white eggs are nearly ready to hatch. Both birds assist in incubation. Last summer a pair of humming birds built a nest in a large tree nearest the house. It

was saddled on the upper side of a dry limb, but almost hidden by other green branches. It was the daintiest little bit of architecture, exquisitely lined, and ornamented on the outside with patches of green moss, so as almost exactly to resemble the color of the limb. A high wind in the fall broke off the branch, which my friend saved for me, with the nest still firmly attached.

While I was sitting on the fence, listening to a flock of gold finches overhead in a tree, I saw a large woodchuck in the adjoining clover field come out of his burrow under an oak to feed on the clover. I kept quiet until he was quite as far from his burrow, triangularly as I was, when I concluded to give him a race. He saw the movement and started for the oak. I had a little the advantage in the distance and kept it, and stuck my foot into the entrance of the burrow just ahead of him. He seemed to realize fully that he was beaten, and made no attempt to escape, but cuddled down in the grass, as much as to say, "I am at your mercy; do with me as you please." I had no desire to do him harm, and only gave chase to see the ungainly, billowy movements that he makes in running, though perhaps his appearance was no more ludicrous to me than mine to him; either way, I puffed much worse than he did. After looking for a few minutes at his fine face, but uncouth body, covered with its rusty, shaggy coat, I moved off and left him free to take possession of his hiding place. This seemed also to astonish him, for he did not move until I was two

or three rods away, when he very cautiously crept under cover.

Several red squirrels interested me by their lively antics. They were running on the zigzag rail fence, then up and down this tree and that, then sometimes passing from one tree top to another, cackling and chattering and barking like little dogs. They lived in the barn during the winter, and are as much at home here as are the cat and dog, which are too fat and lazy to catch them. When I was here last fall, it seemed that there was a squirrel for each tree. They made a business of throwing apples from the tall trees, on the house, into the grass and walks, and sometimes on persons' heads. They seemed to be doing it for fun, in very wantonness, as bushels which were thrown down were unbitten, but the old gentleman would not let the boys shoot them. He said, "there was fruit enough for all, and the squirrels were only helping to gather his cider apples."

Paradoxical as it may seem, when I came away from the old orchard I left the flowers and singing birds, all the pretty nests and frolicsome squirrels just as I found them. Still, I brought them away with me, and have added them to my valuable collection—a collection whose preservation requires neither alcohol nor arsenic.

AUTUMN VISITORS.

"Along the hills wild asters bend to greet
The roadside's wealth of golden rod;
And by the fences, the bright sumachs meet
The morning light of God."

AUTUMN VISITORS.

For some reason many of the song birds became silent earlier than usual this year: the extended drouth may have had something to do with it, but from the first week in August till the 10th of September there was so universal a hush among them that the woods and fields were lonely places, lacking their greatest charm. The middle of September brought a change, and for a few succeeding days glad voices rang out again in favored places almost as joyously as in leafy June. Robins, blue birds, song sparrows, gold finches and vireos took up their songs again, and gave us a real touch of spring. The high-hole uttered his melodious love call from his perch in the dead tree top, and the cuckoo sent his sonorous coo, coo! echoing through the woods only a day or two before the autumn equinox. Some of these birds come back to their old haunts and sing in the trees where they nested months before. These few days of song become a kind of second spring, just as the soft, hazy days that come a little later are the second, or Indian summer. They are the precious days of the naturalist, who visits, or longs to visit, all the old familiar places that were so dear to him earlier in the season.

A daily walk leads me past two wide-spreading elms that overhang the street. In June, for the last two or three years, in each of these a pair of warbling vireos have had a nest, and each fall, months after the young have flown away, the old birds come back to visit the place, and for several days their low sweet warble may be heard near the spot where the little empty nests are hanging. They come in pairs, male and female, showing that they have not dissolved their marital relations, as birds by many are supposed to do immediately after the young leave the nest. I know almost the very morning on which I shall first hear them, so regular are their visits in the autumn. During these few days the singers are sure to have a delighted listener, who loiters long under these trees which they have invested with such interest. I regard them almost as reverently as the ancients did the old talking oaks, which were supposed to reveal hidden mysteries to those whom the gods favored. What brings these creatures back to their old haunts, and what lands have they visited during their absence of so many weeks? Do they come to see if their pensile nests are still swinging on the swaying boughs on which they hung them so long ago? Do they wish to take another look at the dear place where they wooed and mated, and where their precious little families were watched and tended with such constant and loving care, or are they—provident little creatures that they are—looking for a site and planning the building of their next year's cottage before leaving to winter in a summer clime? These are questions to

be answered when birds shall know more of our language, or when we shall better understand the birds.

I only know that these cheerful good-by songs mean glad tidings—they are the harbingers of pleasant, quiet days, and leave one with feelings of serene peace and joy—they are a sort of rounding out of the summer's blessings, a fuller fruition of the glad promises of spring, and help to shorten and bridge over the long period of silence that winter brings.

A short drive distant from the city is a broad though not deep ravine, spreading out at the base into a low grassy meadow; through it a limpid stream of water runs, in places rippling over pebbly rocks and again forming little quiet pools, where the small fish lie and sun themselves in the shallow edges. Many large trees are still left standing on the sloping banks, while in places are thick clumps of bushes, tangled and thickened by running vines. No heathen myths are needed to people this fair and favored spot, for, as might be expected, it is a great resort for the birds, which are *our* nymphs, naiads, and sylvan deities. They come to this little valley early in the spring and make it, indeed, a vale of song. Many little structures of exquisite workmanship are fashioned here in bush and tree, and in hollow stub, or hidden away under tussocks of grass, and in them are deposited treasures of blue and speckled eggs. In the latter part of May, or in early June, if you look, with your heart in your eyes, for such gems, you may find, within the radius of half a mile, two or more score of these nests, and, although you may look in upon them as often as

you like, if you are careful not to disarrange the immediate surroundings, the old birds will not be disturbed. I have even placed my hand on a robin on her nest while she was looking straight at me; then she moved only a foot or so away, where she remained until I had counted the four eggs she was incubating, and while I yet stood by the bush she again took her place on the nest, and I left her looking as serene out of her clear eyes as though no intruder had been nigh. At another time a blue bird kept her place and pecked my hand while I examined the nest. But it is early autumn, after the leaves begin to redden and the woodbine to glorify the fences and bushes with their traceries of blended colors, where the thistle and wild lettuce seeds are ripening, and the sweet elder and pokeweed are purple with shining berries, when the thorn apples, which grow here in great abundance, are showing red among the russet leaves, that the birds come to this place in greatest numbers; many species meeting as if by a common understanding and by mutual consent, some coming for food, some for shelter, some apparently for seclusion, while others are here with their last summer's brood, which they are teaching to sing. It is a rare pleasure on a mild September day to sit on the sunny slope of this ravine and listen to one of these musical performances. Sometimes it is the robins, sometimes the cat birds, or blue birds, but oftenest you may hear the song sparrows practicing in the leafy conservatory. The old birds will sing a few bars, then the young will take up the strain in that wavering, uncer-

tain manner heard in a young canary just beginning to sing, often at first so little like his kind that it would not be recognized without the surroundings; and so it will continue, sometimes for hours, the pleasantest little singing school imaginable. I have often heard the songs of these little birds in the fall, and thought that I was listening to a strange species, until I saw the parent bird near by.

When young and old of different species are thus practicing in close proximity, the young of one will often catch the tone and warble of another, and in this way may the anomalous notes of many birds be accounted for; such instances as I have previously noticed, in which the sparrows, in certain parts of their songs, utter the exact notes of the cheewink or towhee, and one of the creepers, the sweet whistle of the titmouse. A robin will sometimes sing the entire strain of the oriole, uniting the clearer, higher notes of the latter with the sweeter, mellower and more extended song of his own.

The larks still remain in full force, and their shrill notes go up from many a brown meadow and yellow stubblefield. They are among the earliest birds in spring, and are in no hurry to leave in autumn; it seems a pity that these beautiful birds, so rich in plumage and graceful in form, are not endowed with more melodious tones, as, like some boys, they are forever whistling, piercing your ears when you are listening for sweeter and more delicate sounds.

Swallows are now gathering in immense flocks, alighting on roofs of barns and houses and on telegraph wires, where they flutter and chirp to one another in the most social way; they appear to congregate at preconcerted times and places, compare notes in their bird language and then separate, each going his own individual way in search of food or to enjoy his easy and graceful flight in upper air. They could not long subsist in such vast numbers, as their food supply would be exhausted. During a recent drive near Fort Porter, I saw a flock of these birds that must have contained nearly twenty thousand. They covered the roofs of many houses and the telegraph wires for several blocks. Three or four species of swallows fly and flock together promiscuously, but they are all performing a work that should entitle them to our gratitude and protection. All the insect exterminators sold by druggists would weigh little in comparison with the work done by these industrious little birds, yet how many of them are yearly slaughtered by the thoughtless sportsman, who is proud of his skill in shooting them on the wing! A farm barn without the swallow hole in the gable, and the swallows going in and coming out and nesting on the rafters, is like a hearthstone without a cat or child; yet occasionally you find a gruffy old farmer, who fastens them out of the buildings and brushes down their nests, built under the eaves, never thinking that he is fighting the best friends of his garden and orchard. Perhaps if we tell him a truth, that his cabbages will grow unmolested of the worms, when planted near the

barn, where the swallows have free and fearless access to them, he will regard them more leniently. So much easier is it to awaken a sentiment in some men's minds by a barrel of kraut or a boiled dinner than by exhibiting the grace and beauty and music and innocence of all the birds in the world.

Birds left unmolested usually return in the spring to their old haunts, and we could look upon their departure for a season with less sorrow, if we knew more of them would be spared to return; but we know their journey will be attended by danger from cold and lack of food; they will be assailed by beasts, and most of all by man, the most insatiate of all the beasts of prey; they will be shot and trapped by scores and thousands—some for the beauty of their plumage—but more as an article for food. Think of twenty thousand bobolinks shot in one town and exposed for sale as an article of food—these birds of song, that have filled the air with their sweet melody, in orchard and meadow, cheering the hearts of so many people. It is well that the children in their rural homes cannot witness this wholesale murder of the innocent.

Probably next to the bobolinks, the robins suffer most from these rapacious ghouls. How can a man or woman eat such a bird, knowing what music was hushed, what affections stilled, what loss of life and keen enjoyment were forever blotted out of existence, that one palate might receive a moment's gratification.

Miss Thatcher tells us of the bluff old gentleman at a public dinner table, who, on being told that "robins

were delicious on toast," astonished some of the company by indignantly exclaiming: What! eat robins, our household birds! I would as soon eat a baby! A man who, by word, teaches that "God is love," on being expostulated with for shooting robins, replied that "he had a perfect right to shoot any birds for food; that all life was created especially for the use of man." This is almost the universal excuse. We are sick of this miserable, selfish old lie. It is used as a screen to cover half the cruelty practiced by man upon the lower animals, and is not half as honest as the plea that "might makes right." God no more created the birds for you and me than He created you and me for the birds. Let us have done with the old dogma or selfish theology, that "man is the grand pivot about which all the balance of creation revolves."

Beast and bird and plant and flower were made centuries before man inhabited this globe; they still live and flourish where he has never been, and they may continue to live ages after he ceases to exist. The dear old poet utters the diviner melody when he sings:

"He prayeth best who loveth best
All things both great and small;
For the dear God who loveth us
He made and loveth all."

NESTING HABITS OF BIRDS.

And oft an unintruding guest,
I watched her secret toils from day to day;
How true she warped the moss to form the nest,
And modeled it within with wood and clay.
And by and by, like heath-bells gilt with dew,
There lay her shining eggs as bright as flowers,
Ink-spotted over, shells of green and blue.

JOHN CLARE.

NESTING HABITS OF BIRDS.

An interesting feature of bird life is their nesting habits. The general plan characterizing each species is often so modified by place and circumstance, that in many instances the plan seems to be abandoned and a new one substituted. Some of the swallows that formerly nested almost exclusively in caves and in hollow trunks of trees, now build in chimneys, or in colonies under the eaves of barns or other out-buildings. As the country grows older and the hollow stumps disappear from meadows and pasture fields, the blue birds are obliged to use other hollow places, sometimes knot holes in houses and barns, and when unmolested by sparrows they will often come and build in the little bird houses attached to trees and poles near our dwellings. Many of the warblers have left the deep forests and now come to the orchards, lawns and gardens to rear their young; the blue jays also now seek the trees near the habitations of men; some of the fly catchers more frequently nest in sheds or under bridges than, as formerly, on rocks.

The finches (*Fringillidæ*) seldom place the nest above a dozen feet from the earth, though a majority of the family nest on the ground. The tree and chipping

sparrows build in trees or bushes; the vesper and Hudsonian on the ground, while the English sparrow will put its nest in a tree, bush, vine, or in a niche in the wall; the song sparrow usually nests on the ground, but occasionally it will build in a thick bush or low tree. The past summer I found three of these nests in evergreens, and one was occupied by two broods in the season. Brush heaps, especially by the roadside and in orchards, are favorite places of this domestic little bird.

Most of the thrushes (*Turdidæ*) prefer trees or bushes, but like the finches they never place the nest very high. Wilson's thrush and the brown thrashers usually nest on the ground, though the latter will occasionally use for the purpose a thick bush or low tree. The robins, like the English sparrows, seem to have modified their habits by civilization and intercourse with man, and build in all kinds of places, in trees, bushes, in outbuildings, on fence rails, and even on verandas of dwellings. Wrens utilize knot holes in trees or buildings, cavities in stumps and fence posts or boxes placed in the lawns and gardens; these little chatterers are fond of human companionship, and, like the cat-birds, are far more musical when assured of a listener. I have heard one in a morning repeat his delightful little song of "Wren! wren! wee, wee, butter, butter," more than a hundred times, just over my head and but a few feet from his nest; then when I have hidden away from his sight, though still in hearing, he has remained for a long time as silent as a mouse. Chickadees, nuthatches and woodpeckers almost invariably use holes in stumps,

stubs or decayed tops of trees in which to nest, usually excavating these cavities themselves. Occasionally the yellow hammer (*Colaptes auratus*) will appropriate a knot hole in an apple tree for the purpose; but he and the red-headed woodpecker (*Erythrocephalus melanerpes*) are partial to living trees with decayed tops. To these they often return year after year, only clearing out the old cavity each year.

The swimmers nearly all make their nests on the ground, and generally near the water; there are exceptions, and among them notably the wood duck (*Aix sponsa*) which often hatches its young in a hollow stub or tree, sometimes fifty feet or more from the ground.

The American gold finches (*Spinus tristis*) are very partial to the maple, and probably two-thirds of all their nests are placed in this favorite tree. They next show a preference for the peach, birch, and wild cherry. Mr. Cowell tells me that two small maples by the road side each contained three new nests of these birds. Probably the young of last year returned with the old birds, and so kept near one another. No doubt the young of former years often return in company with the parents and build in the nearest available place.

A pair of phebe birds placed their nest on an iron rod running through some beams over a barn floor. The following year two couples built on the same rod, and the summer succeeding there were three nests in a row, and all occupied; as these birds are not gregarious, it is reasonable to suppose that they only obeyed the patriarchal instinct in keeping the family together.

The thrushes build coarse but substantial nests; the wood thrushes and robins make the walls of moistened clay, lining them with soft, dried grass, so that they are very solid and comfortable structures; to prevent these houses from filling with water during a heavy shower while the birds are absent, they wisely leave thin or open places near the bottom, through which the water can pass out. Several species of birds that nest before the leaves are out choose evergreens for their first brood, and if a second is raised it is generally in a deciduous bush or tree. Last spring the leaves were late in coming out, and of the first hundred nests that I examined, principally of robins and chipping birds, ninety of them were in evergreens; a month later the number was nearly reversed.

The Baltimore oriole usually seeks the elm on which to hang its nest; the long, pendent branches allow the bird to build beyond the reach of most quadrupeds, so that probably a larger percentage of the young of these birds is raised than that of any other.

Birds of the same species are partial to particular fabrics or materials to be used for building.

Although the common wrens usually seek cavities in which to place the nest, yet sticks constitute a large portion of these curious domiciles, only the inside being lined with the softest and most delicate stuffs. The cat-bird also uses sticks for the main part of the structure, and these seem to be selected with especial regard to color, being dark twigs corresponding nearly to the color of the bird. This appears to be a general instinct

with the feathered tribe, to fashion the nest of such materials as to make it inconspicuous, and harmonize with the neutral tints of the female bird. The scarlet tanager, that so delights us with his brilliant plumage of scarlet trimmed with black, has a pretty wife dressed in pale green, and the nest is also placed amid a thicket or bunch of green leaves, so that neither it nor the sitting bird will attract the attention of the passer-by.

The humming bird saddles its delicate little house on the upper side of a mossy limb, and then covers the outside with little patches of moss, just the color of the limb and bird, making it very difficult to detect it, excepting by the closest observation or merest accident. The marsh wren builds in a tuft of marsh grass, making the structure partially of dried grass and interlining it with many growing spears of the same, thus leaving the rather bulky nest the least possible conspicuous, so that although they are very plentiful in certain localities, especially on Strawberry Island, Niagara River, few are found until the grass becomes dead and thin. Most of the birds that nest on the ground use materials that harmonize with the earth, and also with the dusky color of the eggs, whereas those that build out of reach of enemies take no such precaution. The oriole uses light, attractive substances, and flaunts the exquisite structure in plain sight of man and all other enemies, relying for safety on its inaccessible situation. The swallow, guided by the same instinct or reason, fearlessly approaches and leaves its nest, regardless of the presence of man.

When horse hair is to be found, the little chipping bird (*Spizella socialis*) builds largely of this material; hence the bird is known in many localities only by the name of hair bird. The nests of these birds are usually exquisitely fashioned, the materials being so deftly and perfectly intertwined that the inside of the nest when detached from the coarse surroundings will stand rough handling without injury; one can closely judge the color of the cattle or horses kept on the farm premises by the lining of these miniature nests.

Those finches and thrushes which nest in trees usually select prongs or forks of branches wherein to place the nest, commencing at the bottom of the structure with coarse material and refining as they proceed; but the orioles, vireos, and a few of the warblers fasten the upper edges of the nest to the horizontal fork of a branch or twig, so that when finished the structure is suspended from, instead of resting on, a support. Although these latter are all pensile nests, the orioles are the only ones that are swinging. This class of birds are the finest architects, and exercise great ingenuity, often to such a degree as to place them high in the class of intelligent creatures.

A friend tells me that a pair of orioles built in an elm on his lawn, but that just after or before the eggs were deposited one of the branches supporting the nest was by some mishap split off. To remedy this accident the birds found a piece of strong twine and securely fastened one side of the structure to another limb, and then raised a brood of birds in their repaired house.

Many other well-authenticated incidents of a similar nature are recorded. A cat-bird placed its nest on two bushy limbs that grew close together. The weight of the structure spread apart the slender branches, when the birds fastened them together by some fine strips of bark.

The weaver bird has a most curiously shaped nest, a specimen of which is before me, sent from Calcutta to a member of the "Society of Natural Sciences." It is a well woven elongated pouch, almost water tight, small at the upper end, about a foot and a half in length and composed of strong fibre and grass about the color of a cocoanut. It is a pensile nest, cunningly and securely fastened to a branch above it, and wholly closed at the top. The entrance is a sort of gallery on one side, opening from beneath, and a little below the line with the bottom of the nest. In this orifice, the bird ascends two or three inches and then settles into the nest, being entirely shut out from the world and securely sheltered from sun and storm. Mr. Pohlman saw large numbers of these nests high in trees overhanging the Paraiba River, South America.

The summer yellow bird (*Dendroica æstiva*) surpasses all other birds in its exercise of sagacity in preparing for its offspring. It is well known that the cow bunting often lays its eggs in the nest of this bird, for incubation, thus escaping the cares of maternity. To foil this, the cunning little warbler often builds a tall or double-headed nest, and if the bunting deposits her egg first, a wall is built over it, and the bird lays her own eggs; if the intruder's egg is laid after her own, then

she works it down to the bottom of the nest, imbedding it too deep for incubation. I have found two of these nests and have examined others. One of these that I watched from the foundation till the young had flown is in the collection of the Society of Natural Sciences.

Cuckoos and nearly all the *Columbidæ* make very slovenly nests, mostly of coarse sticks with slight lining and of but little depth; while the whippoorwill makes no nest at all, but deposits two very pretty white and nearly round eggs on a level patch of dry leaves amid thick shrubbery, When the viroes have nearly completed their finely wrought structures, they ornament the outside with bits of cocoons, wasps' and spiders' nests, fastening these substances on the other materials in a most mysterious manner. Only very sharp eyes could find so much of seemingly scarce materials in the limited radius traversed by birds.

Chimney swallows gather most of their materials on the wing, snapping the dry twigs from partially dead trees. Barn swallows dip the straws and sticks, to be mixed with clay, in the water, sometimes going a long distance to a pool or brook for this purpose. Some birds have a saliva or gelatinous matter that answers for a cement.

As with their singing and feeding, many birds are more industrious in nest building in the morning and towards evening. Some carry on their work boldly, with little regard for the presence of man, while others come and go so stealthily that unless you are very watchful you may never see the little architects at work, although the nest grows as if by magic, right before your very eyes.

MAPLE SUGAR MAKING.

Such beautiful things in the heart of the woods,
Flowers and ferns, and the soft green moss;
Such love of the birds in the solitudes,
Where swift wings glance, and the tree-tops toss;
Spaces of silence, swept with song,
Which nobody hears but the God above;
Spaces where myriad creatures throng,
Sunning themselves in His guardian love.

MARGARET E. SANGSTER.

MAPLE SUGAR MAKING.

Few rural occupations possess the charm that sugar making does; there is a picturesqueness and poetry about it surpassing that of any other branch of industry; and no man who had in boyhood the blessed privilege of spending a few weeks each year at its rugged and healthful tasks can ever think of the sugar bush without having his heart leap with a quicker bound. If ever the mind of the imaginative boy drinks in the sweet and tender influences of nature, that are to make broader and better and more enjoyable his later years, it is during these few weeks of wild, free life of work and play in the woods.

In some of the counties of New York and New England, where rock maples abound, farmers tap from one hundred to one thousand trees each—sometimes even as many as five thousand. The sugar season extends over a period of three to six weeks. If the spring be an early one, a few men may tap a portion of their trees the latter part of February, that they may obtain a "gilt-edge" price for their product, as sugar made early is clearer and whiter than that made later in the season; but generally the sugar makers wait until after

the first warm days of March before commencing preparations for the spring campaign. In the larger "bushes" many of the improvements and conveniences are made to be permanent. A stone arch is built, large enough to support two or three broad but shallow sheet-iron pans and a swinging caldron kettle. A rude but comfortable cabin, fifteen or twenty feet square of boards or split logs, is erected just in front of the arch, and but a few feet from it, to serve as a dwelling for the men during the sugar season, and as a storage house for the buckets the balance of the year. Convenient roads, through which the teams may be driven to draw the sap, are made by cutting out the underbrush and fallen trees. A few cords of wood are cut in the fall and hauled near the camp, as a part of seasoned fuel is almost a necessity. After two or three bright days in March, and while the weather is still crisp, the sap buckets are taken out and scalded, and then distributed through the woods, leaving one near each maple tree—and if the tree be very large, perhaps two. These preliminary arrangements completed, further work is deferred until the day is warm enough to set the sap in circulation. A warm south wind is favorable to start it, but a west wind is necessary for a prolonged run. Now commences the active work in the woods. The sound of the axe is heard from morning till night, and the clear, metallic ring of the hammer and tapping gouge awaken the woodland echoes; the men and boys, with whistle and song, join in the chorus, and the picture is one of cheerful industry.

A few sugar bushes are tapped with auger and spiles, but most farmers prefer tapping with an ax and gouge, as the wound in the tree heals more readily in the latter case.

A small diagonal box is cut in the tree—and it can be done by two smart blows by a skillful chopper—a spile is driven into the tree just below the gaft to catch and conduct the sap to the bucket, which is generally suspended by a nail to the tree, and the operation is completed. With what interested expectancy the first burst of sap is always watched as it trickles into the bucket! from some trees it starts and drops very slowly, as if reluctantly, while from others it starts with a gush as though glad to be set free and is not satisfied with dropping, but becomes a little stream; this is the case with the few old black-barked trees, such as are to be found in nearly every sugar orchard. These black-barked trees are known to yield three or four pails of sap in twenty-four hours, and require frequent visits from the gatherer.

Different branches of the work are now assigned to the several hands—those who are most vigorous and rugged gather the sap, while the oldest and youngest members, those least capable of standing fatigue, are left at camp to do the boiling. They must regulate the fire and keep the pans and kettle properly filled. The cold sap is usually heated in the forward pan and then dipped to the one back of it, where it is kept continually boiling. After its partial evaporation, it is passed to the kettle, in which it is "syruped down." This

kettle occupies the back of the arch, and is suspended from the short arm of a lever, that it may easily be swung off the fire when the liquid becomes a thin syrup. The syrup is strained into tubs, and then usually taken to the farm house and left a day to settle, and there "sugared off" and caked. A bush of five hundred trees will require a storage capacity at camp of three or four hundred pails, and even then if there is a prolonged run, the boiling sometimes has to be kept up night and day for a whole week at a time. Now it is life in the woods in real earnest; the camp becomes the home of some of the members who eat, sleep and read in the cabin. The arrangements for sleeping are of a primitive character—a bunk of hay and a few blankets on the floor—but they are sufficient for the requirements, as short naps are about all one gets during these night watches, as when two persons are left to do the boiling, the necessary labor will keep one continually busy; if greater numbers are present—and often there will be a rendezvous of a dozen men and boys—the camp will be too lively for any one to sleep. On these occasions there must be a "sugaring off" at camp, and a small kettle, perhaps brought to the woods surreptitiously and hidden away in some nook, is always in readiness for the purpose. This is a proper time for story telling, particularly stories of wild adventures with beasts and Indians, and the younger members listen until they almost expect to see some wild animal pounce upon them, or a band of savages spring out of the dark woods and surprise the camp.

There are few scenes more impressively picturesque than the sugar camp-fire at night. The dancing blaze lights up the woods, and the objects stand out clear and distinct, or are thrown into deeper shadow by the flickering flame; they move about as the fire changes, and are both real and unreal. Some of the trees look like monster giants reaching their long and naked arms into the light, grasping for other arms—and the imagination can make of them, trees or elves or hobgoblins. There is a weird look about the pale, dry leaves that still hang to the low limbs of some of the beeches, and one instinctively starts, if they rustle, as though it were the rustling of the garments of a ghost. The ancient Greeks believed that when they heard the rustling of dry beech leaves, a wood nymph was being born. During these silent watches of the night, a pleasanter sound is the soft and gentle dripping of the sap as it falls into the buckets from the neighboring trees. Its drop, drop, is very musical, and lulls one like the regular ticking of the old clock at home. This even dropping of water is the true liquid melody, and falls upon the ear even more soothingly than the rippling gurgle of the rill. The charmed hour is just as the day begins to dawn. It is like enchantment to lie on the rude couch in the cabin and see the stars fade out in the far away heavens, or to watch the slowly shifting clouds above the net-work of tree-tops, until the trees themselves appear to be moving like masts and spars of many ships. Then the drumming of the partridge will awaken the echoes of the woods, and the robin will

sound his silver horn; the red squirrel will cackle from his safe retreat above you, and the little chickadee lisp his good-morning, and while you watch and listen, half dreaming and half thinking, broad day-light and the duties of another day will be upon you. As the season advances and the snow disappears, the animals that have hibernated again show themselves, and others return to their old haunts in the woods. The large hen-hawks come back to nest in the elms, and every day they may be seen in their aerial flight circling above the trees; nothing can be more graceful than the flight of the larger hawks. How one envies them their leisurely journey in the upper air! and, when the noisier crows come in numbers to assail them, with what indifference is the attack received; if the assault is continued till it becomes annoying, the hawk poises his pinions, and mounts upward, beyond the equipoise of the clumsier and more groveling birds.

You meet the timid little rabbit at every turn, and after a while it ceases to appear startled at your approach. The squirrels are chatty and noisy, apparently delighted with the presence of man. The bird that pleases you most and startles you oftenest as it goes whirring through the woods is the partridge. You may find the hen nesting in some open place soon after the snow is off the ground, while the male bird will reassure her by his martial drumming from some moss-covered log in an adjoining thicket. It would indeed be a lonely woods in which there were no squirrels or partridges. Would to heaven that laws could be so

made and enforced that these beautiful creatures might be better protected and become more numerous. Their presence is as necessary to give a charm to the woods as are the plants and flowers. If the sugar bush is next to the clearing, the fauna and early flora will both be more abundant and interesting, and you will have the daily companionship of blue birds, robins, jays, nuthatches, woodpeckers and song-sparrows, and before the season closes, some of the most beautiful and interesting early flowers will show themselves above the decaying leaves. The woods are not only filled with pleasant sights and sounds, but the sweetest odors fill the air; the limpid sap is fragrant with the essence of maple; the bark of trees, the chips and newly cut wood, all send out their subtle tribute of incense to mingle with that of the plants and flowers which are just starting into life; the dead leaves that have lain all winter beneath the snows have a pleasant, earthy smell, and even the old crumbling logs reddening in decay, have about them the very essence of the aroma of the woods. When several sugar bushes are contiguous, it is a pleasant sight to see the blue and gray smoke curling above the tree-tops during the day, and the gleaming fires marking the whereabouts of a dozen camps at night. The provisions are sent from the farm house, and they are such provisions as can be prepared only by loving hands at home, and are eaten with a relish known only to those who labor and eat in the woods: everything tastes well, as at a picnic—even the salt pork has a most appetizing flavor—especially if

it comes raw and can be cooked in the glowing embers, held on the point of a sharpened stick. How generous the hens are in their supply of eggs at sugaring time! Large quantities always find their way to the woods. The sugar camp is better than a water-cure for a man fretting with dyspepsia. Sometimes there are several days between the runs, in which the sap will not start at all—the weather being too hot or too cold. Freezing nights and sunshiny days are favorable conditions for its free circulation in the trees. Burroughs says: "A day that will bring the bees out of the hive will bring the sap out of maple trees. It is the fruit of the equal marriage of the sun and frost." No class of people note the changes of the weather more closely, watching the fulfillment of all signs, than the sugar makers. When the piping of the frogs is heard in low places, three more sap runs are predicted, as it is believed the frogs will be frozen in three times after their first appearance. Sugar made after the buds begin to start is salvy and will not cake well, and later, it will not granulate or crystallize at all, but is stringy and has a strong, disagreeable flavor, very different from the sparkling cakes made when the trees were first tapped: this must be nature's hint that the sweet blood of the tree is needed for other uses; at least, it is a hint that the sugar season is over.

Other urgent work usually compels the sugar makers to leave the bush immediately after the last "run" until the first hurry of fence and garden making is over, when all hands return to the woods to gather,

scald and house the buckets and storage tubs. What a transformation will have taken place in the woods during the two or three weeks' absence! The roads and paths are no longer familiar. The leaves that have put forth, as by magic, have changed the appearance of everything. One hardly knows the old sugar camp, so altered are all its surroundings. It has become like a scene of enchantment. Shady bowers and leafy grottoes are on every side. One can hardly see the sky through the dense foliage of the beeches and maples. It is the season of the migration of the Dendroicas. These bright-winged birds flitting through the branches give a topical look to the scene. Prominent among them are the Blackburnian warblers, with throats of flame. The yellow-rumped warbler, like a rainbow in color, lisps his thin song high in the tree-tops.

The red-start, with black and orange contrasting with the bright yellow, displays to advantage this rich plumage as he opens and shuts his wings like the large showy butterflies, which he much resembles. The scarlet tanager carols serenely from his perch in a tall tree, or sits among the low branches earnestly and almost sadly calling, "chip, herd! chip, herd!" until a companion answers the call, when away they fly, to give color to another part of the woods. The partridge, now from his unseen log, beats his muffled drum just beside the path. The chipmunks have lost their fear, knowing their safe hiding-places so near at hand, and will saucily chipper almost under your feet. Thousands of honey bees hum about the ropy sap that is still ooz-

ing out on the shady side of the trees. Occasionally you find a beautiful white-bellied deer mouse drowned in the half-filled buckets.

The housekeepers of the woods have everywhere put down carpets, whose warp of green is filled in with the woof of bright blossoms.

The ferns have unwound their downy coils, and their spreading fronds fill the air with an herby perfume. The thrifty green leeks look better than they taste, and taste better than they smell. Everywhere the ground is decorated with erythroniums, trilliums, dicentras, spring beauties and cardamines. But these æsthetic attractions are not the only objects of interest to at least the younger members of the sugar makers. Where is the country boy that does not know, as well as the squirrel does, where everything grows that is good to eat or to gnaw upon? The aromatic black birch, the young wintergreen, the fragrant spice bush and slippery elm all belong to his out-door larder.

The chief profit of these few days of pleasant labor in the woods does not lie in the amount of sugar made, although the yield may be abundant, and it is the most healthful and toothsome of sweets—the money value of the product is the least part; but it consists in what the mind has absorbed of the spirit of nature by this closer contact with her; the imagination has been fed on wholesome food; the love of the country has been nourished, every physical sense has been quickened and strengthened, and the mind has been made richer by a better knowledge of the real living things of earth.

DANGER OF AN EARLY EXTINCTION OF SONG BIRDS.

"Think of your woods and orchards without birds!
Of empty nests that cling to boughs and beams
As in an idiot's brain remembered words
Hang empty 'mid the cobwebs of his dreams."

"What! would you rather see the incessant stir
Of insects in the windrows of the hay,
And hear the locust and the grasshopper
Their melancholy hurdy-gurdies play?
Is this more pleasant to you than the whir
Of meadow-lark, and her sweet roundelay,
Or twitter of little field-fares, as you take
Your nooning in the shade of bush and brake."

LONGFELLOW'S "BIRDS OF KILLINGWORTH."

DANGER OF AN EARLY EXTINCTION OF SONG BIRDS.

The wide-spread slaughter of the birds is a far more serious matter than is generally supposed, not only in its æsthetic and humane bearings, but also in its relation to man's physical comfort and well-being.

The means by which the wicked slaughter may be checked is therefore a problem that should engage the attention of the practical utilitarian as well as the humane naturalist.

The preservation of the birds means not only the preservation of the most charming creatures that minister to man's higher enjoyments, but it means the preservation of our fruits and flowers, our vines and vegetables, grain fields and grassy lawns; it means freedom from the most annoying insects and other troublesome creatures, that, if left to multiply, would render life a burden and some sections uninhabitable. Neighborhoods and countries are already paying the penalty of their unwise dealings with their feathered friends. In France several species have already been exterminated, and a failure of agricultural products have followed in consequence. In Italy also, where the highest ambition of the shiftless class seems to be to kill

enough small birds for the table, a cry of distress goes out concerning the ravages of destructive insects. England, foreseeing this danger, wisely concluded that it was no longer safe to allow every idle, selfish, irresponsible man and boy to "become a law unto himself" in this matter, and that as moral suasion failed, the stronger arm of the law was necessary to protect the interests of those whose rights were disregarded by the lawless. Stringent bird laws were enacted, and as a result, several species of song birds in England are again on the increase.

I do not believe we have a single native bird that is not a greater creditor than debtor to man, while nearly all species are entirely useful, conferring only benefits and inflicting no injury. When unmolested by man, wonderfully well do they fill their places in the economy of nature. Among them are fitting workers in the air, the swamps, the forests, along water-courses, in orchards, gardens, meadows, grain fields and pastures, busy all the day in their priceless feeding services, yet most of them finding time to still further gladden the world by their minstrelsy.

In usefulness, the thrush family doubtless stands first. The benefits conferred on husbandry by them are incalculable. This family work principally on the surface of the earth, devouring in great numbers all manner of worms, grubs, harvest-flies, beetles, caterpillars, and other creeping things that prey on roots and stalks of vegetation. In this service no others excel the robins, the most familiar of the thrushes; these are

busy early and late, faithful laborers in lawns and fields, protecting them against their two worst enemies, grubs and earth-worms. The number of these destroyed by one robin in a season is enormous. A pair have been known to bring to one brood of young more than 3,000 earth-worms, and that, too, when the birds were surrounded by ripe fruit which was left unmolested.

The destruction alone of the cut-worms, saves annually to the farmers millions of dollars, more, in fact, than enough to pay the injury done by all the birds in America. These worms, so destructive to many kinds of roots and cereals, come out of the earth at night to feed. Before they get back the robins breakfast on them. All the thrushes are early risers, and from this well-known trait comes the truism, "The early bird catches the worm."

The swallows are on the wing most of the day clearing the air of gnats, small flies and mosquitoes. The number of insects destroyed by these aerial birds is enormous. No one can charge the swallows with injuring anything that belongs to man, or of eating any mite which by any means could be converted by him into food or raiment. All the fly-catchers are co-workers with the swallows, taking their food on the wing. They are entirely insectivorous, and each one literally "worth its weight in gold."

The climbers seem to have been especially created for the protection of the trees, and well do they fulfill their mission. They are provided with strong claws and stiff acuminate tail quills to assist in climbing.

Their bills are long and sharp for chiseling through bark and decayed wood. The muscles of the neck are strong, enabling them to make rapid and powerful strokes, while the lengthened tongue is provided with barbs for pulling out the hidden insects. A pair of woodpeckers will eat in a season thousands of insects, and will destroy the eggs and larvæ of more imbedded in the bark, which, if left, would produce millions to prey upon the life of the trees.

Many orchards of small fruits, such as cherries, plums, quinces and pears, have been entirely destroyed simply through the misguided farmers, who, mistaking their valuable services for injuries, killed these woodpeckers as fast as they appeared. No wonder that forests decay, and fruit trees become valueless, when their friends and protectors are killed that their enemies may live and flourish.

The golden-winged, the most beautiful as it is one of the most useful of this class, has been so persecuted by the collectors, that the number is becoming very small, with a prospect of an early extinction.

Clearing the leaves of fruit and shade trees, of insects' eggs and larvæ is largely performed by the active and ever-busy wrens and sweet-voiced vireos; while the creepers and warblers perform the same office to the trees in the deeper forests.

The cuckoos and orioles are invaluable in ridding the foliage of canker worms, and if they were allowed to live and multiply, as they naturally would, we should not be troubled with the unsightly worms' nests that

disfigure and ruin so many apple and wild cherry trees.

Our native sparrows live almost wholly on insects and the seeds of troublesome weeds.

Space will not allow the continuance of this enumeration, but this kind of services expresses only in small part the valuable uses for which we should hold the birds in great favor. They minister in a large degree to our intellectual enjoyments; to our love of nature in its most attractive forms; to our taste for beauty and music—not in equal measure, it is true, to the ignorant, the uncultured, the unimaginative—but to people of refinement, endowed with sensibility and imagination, the birds are large elements in the sum of innocent pleasure.

Men are generally slow to realize the danger of losing that which is apparently abundant, especially if it costs nothing. One sees this in the wanton destruction of useful forests and in the lavish waste of quantities of valuable timber, but in nothing else is this shown so clearly as in the senseless and wicked waste of bird life. It seems difficult to make people understand the present causes which, unless speedily checked, will surely lead to the extermination of several species of our native birds, and among them several that are the most useful and interesting.

Let us examine a few of these causes, some of which have long existed, and others that are of recent origin. Among the latter are the English sparrows, which are driving our native birds out of villages and cities more

rapidly and just as surely as some of the hardier exotics are crowding out many of the more delicate wild flowers. Our shy retiring song birds will not stay surrounded by such a horde of noisy, scolding gamin: besides, the sparrows occupy most of the nesting places of such birds as the wrens, martins, blue birds, etc.—only a limited number of birds will occupy a given area in the nesting season.

A denser population and a rapid disappearance of the forests have had their influence in diminishing the number of the sylvias, especially those of bright plumage whose safety depends largely on secure hiding places.

The dangers attending the spring and fall migrations are rapidly multiplying. The countries over which the birds pass are becoming gauntlets of destruction. The colored population and the "poor whites" of the south, now quite generally provided with fire-arms, kill vast numbers of robins, golden-winged woodpeckers, larks and bobolinks for food. The accounts from some of the localities are most distressing. A paper in Virginia noted last fall the fact that trappers with nets were having great success catching the fat robins that stopped to feed: that some experts caught three and four thousand a day. In the swamp during a fall of snow other "pot hunters" were each shooting several hundred a week. At certain seasons the markets of the border States are more plentifully supplied with small birds than with any other products. No wonder that each succeeding spring brings back fewer of our friends.

Light-houses are on the increase, and as the birds fly mostly at night, these beacons of safety to man become sources of peculiar danger to the birds. Thousands have been killed on Bedloe Island, attracted by the light on the Statue of Liberty. It is said that this light can be seen by the naked eye twenty miles or more away. One morning the superintendent picked up 1,375 birds that had perished the night previous by flying against the light. During these flights by night, violent storms beat many to the earth, while thousands perish by being driven out to sea. The earlier migrants often suffer greatly by stress of weather in the spring, not so much with the extreme cold as for the lack of food. When the ground and trees are covered with ice the food supply of many species is almost entirely cut off: it then becomes a question of famine endurance.

The decrease in larger game also works against the smaller birds. Men and boys, called sportsmen, go out to shoot. If they cannot find quails and plover, robins and bobolinks will do. If there are no pigeons and partridges, larks and flickers may fill their place. If these are scarce, then the smaller birds must become the prey. They came out to shoot and must have their sport. Sport! oh, cruel misnomer; how many millions of beautiful, innocent lives have been sacrificed in thy name! The Sabbath is particularly a day of terror and death to birds. Hundreds of men and boys from cities and villages go out into the country with guns for recreation. They shoot indiscriminately every wild creature they meet. I have found them with dozens of

song sparrows, thrushes, blue birds and orioles. Some mornings, in a distance of ten miles, I have seen eight or ten of these marauders. With no warrant and no assistance, one is powerless to redress the wrong. The legislatures should pass a law prohibiting the carrying of a gun on Sunday. Every person found prowling around the country with guns, or other murderous weapons, should be liable to arrest at sight, without further process of law. Many students in ornithology are exceedingly wasteful of life, often foolishly and cruelly so. The rarer becomes a species the less the chances that any will escape. Every ambitious collector is anxious for a specimen, and is alert to obtain it. It matters not that the species has been often described, its structures and habits well known—the bird must pay with its life the penalty of being rare. Bradford Torrey, who, without gun, has become so familiar with New England birds, heard in the White Mountains the song of a thrush not supposed to belong to that locality. On his return to Boston he published the incident. It was doubted by an ambitious ornithologist, who, with gun in hand, set out for the locality. He found the thrush as described, and with it five or six others, all of which he shot, thus annihilating the colony. It is almost as much as its life is worth for a scarlet tanager, summer red bird, or a rose-breasted grosbeak to show itself. A well-known taxidermist has killed and put up several hundred rose-breasted grosbeaks and indigo birds. Another ornithologist says "he ought to know a certain shy warbler, as he

has brought down his hundreds of them from the tops of tall hemlocks." Do you tell me this was in the cause of science? Out upon the pursuit in such a spirit! It is a burlesque on science, a travesty on the study of natural history.

It is a curious fact that although birds as a class are the most innocent, the most beautiful and musical of living creatures, they are more preyed upon by man and beast and crawling reptiles than any other beings. Cats, weasels, skunks, squirrels, ferrets, muskrats, mink, foxes and snakes, all prey upon them, killing the old birds and eating the eggs and young; in many cases getting nearly their living on the birds. They have robbers, too, in their own class. Hawks, owls, crows, jays, shrikes and one or two species of blackbirds are cannibals in their way. One can indorse the terse, strong language of Dr. Abbott, the naturalist: "A creature that will destroy a song-bird's nest is a pest, and whether furred, feathered, four-legged or a boy, ought to be exterminated."

The Agassiz Association, itself a worthy organization, with laudable aims, soon had thousands in its ranks who degenerated into mere specimen gatherers. The egg-collecting craze infected boys alike in cities, villages and rural districts. The country was scoured far and near for nests and eggs. Lawns, hedges, orchards, fields and highways were mercilessly ransacked, and every nest common or rare despoiled; even cemeteries, always favorite resorts for the birds, were not exempt from the destroyer. Within the last few years millions

of eggs have thus been destroyed, and little scientific knowledge gained by this manner of study. Not one egg in a thousand was preserved two months; not many of them that number of days. I have had thousands brought to me by boys for identification. In answer to questions, I more frequently found that the boys had little or no knowledge of the subject, often not knowing what species they had robbed. These eggs were to them as so many marbles, or other toys, trophies, valuable only as objects of barter, but the effects on the bird population were none the less injurious. Many of the older members, claiming to be engaged in the investigation of science, go forth maiming and killing their thousands of the commonest birds, those that every intelligent school-boy knows. What new facts will these people ever give in return for this license? Our birds have all been identified and described, and a further persecution of them in that direction is selfishly barbarous, and ought not longer to be tolerated. Even all these causes seem dwarfed when compared with the destruction of the birds for millinery and decorative purposes. If the facts connected with this traffic could generally be made known, a thrill of indignation would take possession of every right-minded person, and the community in wrath would demand that the outrage be summarily stopped.

Unfortunately the killing is carried on surreptitiously, much of it in out-of-the-way places. Those who have investigated the subject know that thousands of men and boys, all over the country, are regularly employed

to kill and skin our native birds. To make a living, each of these persons must kill at least fifty per day, allowing for the large number spoiled and unmerchantable. Not only this, but scores of bushwhackers on "their own hook" desultorily pursue this calling as they have time and opportunity, disposing of their spoils on "the sly." If you would see the results, visit some of the large establishments where this kind of goods is sold to smaller dealers, and inquire as a purchaser. Some of them handle hundreds of thousands in a season. Then go the rounds of the retail fancy stores and millinery shops in any large city. In each may be seen hundreds in stock. It is the same in all country villages. Who has not been disgusted and saddened in looking through the fancy shops at Niagara Falls, to see the havoc that has been made with the songsters, to give this display of bright feathers, mounted on fans ungainly perched in cases, lying in hundreds on shelves, and packed in boxes; tanagers, blue birds, cedar birds, orioles, humming birds and gold finches, more of these skeletons in this one village than can be found alive in two entire counties. Here, too, men are regularly employed to supply these establishments.

Attention need not be called to the individual uses of these decorations. You can see them on the hats of rich and poor, old and young; a whole bird on one, a half dozen wings on another, beaks and breasts on others; hateful emblems of vanity and thoughtless cruelty, most unbecoming to our fair women and sweet-faced girls.

The beautiful little indigo birds, looking like patches of blue sky among the leaves, are nearly gone. The tanagers, with their tropical brilliancy, are almost extinct. Never one escapes if seen by a collector. The flickers, with golden wing shafts and crowns of crimson, are hunted like outlaws. The American gold finches, so sprightly and musical, and formerly so plentiful in every field and orchard, where they were at home in trees or on pasture thistles, gems of jet and gold, are now seen only occasionally. They were too pretty to be allowed to live in this wicked world.

The blue birds have had an equally hard fate. They naturally seek the haunts of men. They are confiding creatures, and too innocent to practice cunning, so they easily fall a prey to those who go in search of them. Last summer I visited many familiar old pastures and stumpy fields in which formerly I could find dozens of pairs nesting in May or June. In neither of these localities was there one left. They had been hunted until all were killed. The rollicking bobolinks, immortalized by Irving, no longer thrill the school-boys in country meadows. Their natural companions, the clover blossoms and buttercups, annually appear, but the glad, tuneful voices are hushed. The plumage of these birds was attractive, and their bodies delicate morsels on the table—to these people "sweeter than song." The wee humming birds, whose diminutive forms should have secured them from harm, are now oftener seen on wearing apparel than on the flowers.

Their shining wings and ruby throats proved "their

undoing." Where are the flocks of snow buntings that used to give a touch of summer to the wintry fields? Where are the troops of beautiful cedar birds, of meadow larks and purple finches that were a few years ago so plentiful?

Here are a few statistics gathered by the New York Audubon Society: "We know one taxidermist that handles thirty thousand bird skins in a year. A collector in a three months' trip brought back eleven thousand. From one small district on Long Island, seventy thousand were gathered in four months. Feb., 1886, a New York house had on hand two hundred thousand bird skins. Millions are sent abroad. A London auction house sold of these 404,000 in a season." These figures tell only in small part the shameful story. Whittier, the kindliest of men, was constrained to write, "I could almost wish that the shooters of the birds, the taxidermists who prepare them, and the fashionable wearers of their plumage, might share the penalty of the Ancient Mariner who shot the Albatross."

A few more years of such wanton warfare on these unbought yet priceless blessings, a few more years of crime against the "wise order of the world," and men will walk the voiceless fields and woods, where instead of bright wings amid the green foliage, and artistic structures filled with eggs and fluttering birds, only unsightly nests of crawling worms will dangle from leafless bush and tree. In place of soothing, happy bird voices, only the fretting hum of troublesome insects will worry the listening ear.

Yet we have faith to believe that for these innocent and beautiful creatures a better day is dawning. The leading ornithologists, those who are entitled to the name, have placed themselves on record against a continuance of the outrage. The State Legislature lately enacted stringent laws against the killing or exposing for sale of any song birds. Many newspapers are advocating a more rigid enforcement of the law. Intelligent and tender-hearted women are using their pens and voices in the good work, and by example as well as precept are becoming a power in this most worthy cause; while thousands of thoughtful girls and boys—the hope of the future—are becoming active and efficient workers in the Audubon Society.

A SEARCH FOR A WHIPPOORWILL'S NEST.

Bird of the wilderness, dearer than Philomel;
Echoes are telling thy notes from the hill and dell;
Lovers and poets delighted are listening
When the first star in the dewdrop is glistening,
Waiting the call of the eremite forester,—
Lonely, nocturnal and sentinel chorister!
Prophet of gladness, but never foreboding ill,
Caroling cheerily from his green domicile,
Uttering whippoorwill, whippoorwill, whippoorwill,
Sibylline, tuneful, mysterious whippoorwill.

WILSON FLAGG.

A SEARCH FOR A WHIPPOORWILL'S NEST.

Friends living in the eastern part of the county lately sent word that "the boys had found some rare and curious birds' nests in their neighborhood—among them a hawk's nest on the ground in the woods"—and invited me to come and examine them. From the description given, I at once surmised that the *hawk* was a whippoorwill, but as this bird is rare in this section I was anxious to visit it. A ride of twenty miles on the cars, and a carriage drive of a couple of miles more over rough roads, I met my friends with whom I was to spend a day or two botanizing and in looking for old acquaintances among the birds. The promise of a pleasant day was early broken, as a drizzling rain set in, accompanied by cold winds, that put a very uninviting aspect on the face of nature. My friend, to whom rain and sun are alike agreeable when he is in pursuit of plants or birds, thought the weather was just right for such a tramp, so after dinner we donned rubber coat and boots and set out for the woods. The objective point was the whippoorwill's nest, which is back of the sugar bush, in the edge of a large swamp. An intelligent lad, who accompanied us, had seen the nest, and was sure he could lead us directly to it, and as he was a

boy of few words, my companion had confidence in him as a guide. We followed him through wet woods, over bogs and fallen trees, for an hour or more, until he began to show signs of bewilderment and discomfiture, when we asked him if he was quite sure that he knew the premises. "Yes; but he don't see where the pesky thing is." But when to our inquiry for the direction towards home he pointed to quite a different point of the compass, our confidence in the silent guide was a little shaken, and each one did a little hunting on his own account. By and by the lad called to us and said, "Some how or other the darned woods had kinder got turned around, but if we would go back to the clearing and again start right, he felt sure we could find the fool bird and nest, as they were at the left of the wood road near a large stump and a whopping big tree." So we dragged ourselves and our heavy boots back to the edge of the woods and took a new start. As another hour of wading through swamps and underbrush, where each bush gave us a bath, proved unsuccessful, we concluded to postpone the search until the next day.

Although we had failed to find the nest, we found many interesting plants and flowers, among them several orchids, as a partial remuneration.

Coming to a little opening in the woods we found the ground starred with the dwarf dogwood (*Cornel Canadensis*) and star flower (*Trientalis Americana*). It is these little flowers that give such a charm to the woods —flowers that we must search for in sequestered places

and hidden nooks—such flowers as the Mitchella repens, Coptis trifolia, Aralia trifolia, and epigea repens.

The larger showy flowers may attract at first sight, but the pleasing effect is not lasting. One soon tires of even the flaming Kalmias and dazzling Azalias, when they appear in great abundance, and a handful or two is better than a wagon load. Not so with those delicate little flowers that one finds hidden in the leaves and moss. The other day, quite unexpectedly, I came across a bed of the little flowering wintergreen (*Polygala paucifolia*), the first that I had ever found in that locality, and no field of mountain laurel, or swamp of Rhododendrons ever gave me the pleasure that these little blossoms yielded. The thought of them still lingers in the mind like the memory of a pleasant dream, and I am tempted to make another journey just to look again upon their rose-purple faces.

After a night's rest we were in readiness to renew our tramp in the woods. The weather had cleared up, and the sun was shining on a perfect day.

Before setting out we visited two old orchards, on the premises, and found a goodly number of our friends housekeeping in the apple trees. The silent lad, who was still with us, became more talkative, and insisted that "he had repeatedly seen a yellow wren in this orchard, and that the wrens were great bee eaters," but we had grown a little skeptical concerning his knowledge of ornithology, and endeavored to persuade him that all these little birds save his bees by destroying moths and millers.

The orioles seem partial to this orchard, and already have seven or eight nests in it. They usually hang them on the taller elms, out of reach of cats or boys; but the last one that we found is tied to the dry limb of a small apple tree, and placed only a little higher than a man's head. In looking into it we disturbed the sitting bird, which darted out past us, winnowing the face as she flew away with an angry scream.

In a moment half a dozen orioles of both sexes gathered about us, scolding and fretting at the disturbance. There seems to be a bond of sympathy between them in time of danger, and they pool their forces for the common defense. The robins' nests were very numerous here, and some of them contained the second set of eggs. In one tree were two chippies' nests of addled eggs, and in each nest was an egg of the cow bunting. All the spring an albino robin sang in this orchard and became an object of much interest to the family until two men from the city came out gunning, and one of them shot the bird. The life of every beautiful bird is endangered when these tramping ruffians are abroad. A few days ago I saw two men drive under a shade tree, shoot a robin off her nest, throw the bird into the wagon, and drive away before we could reach him.

In the morning, on our way to the woods, we passed through some meadows all abloom with red clover, and a score of bobolinks were singing all about us, some on the wing, some on the fences, and some from their perches on the twigs of bushes and trees; they were changing places and breaking in upon one another's

songs with little regard for the proprieties, but with no lack of melody. From all appearances there were nests close at hand, as the birds made a great ado when we approached certain localities, but after a fruitless search for half an hour we again realized what we supposed we already knew, that the nest of a bobolink is a very difficult thing to find. I have found a few, and a very few, in comparison with the number secreted. I often think the cunning creatures, in order to mislead, make the greatest fuss when you are farthest from the nests; besides, the female of this species, which alone does the sitting, is almost the color of the grass next the ground. There is more danger that you will step on the nest than that you will find it.

In a stump by the fence a blue bird had a nest with four eggs. While we were admiring the pale blue gems, the male bird pleasantly caroled from a fence stake; there was no touch of spite or of annoyance in his soft, sweet warble. It was serenity itself. Never were song and vespers sparrows more tuneful. They were making up for the loss of the day before. If old Izaak Walton had been present, he might well again have exclaimed, as he is said to have done while listening to the thrushes: "Lord, what music hast Thou prepared for Thy saints in heaven, when Thou affordest such wonderful songs to Thy creatures on earth!" We were tempted to linger long in this attractive meadow, over which melody and fragrance were so lavishly scattered, and the sun was high in the heavens when we reached the woods. After a search of less than half an hour our silent guide drew

a long, low whistle and exclaimed: "Gosh! I've struck it; there is the stump! move quiet, will you?" And sure enough the whippoorwill fluttered away from almost beneath our feet. Her flight was noiseless, and she alighted on the truuk of a fallen tree, which she seemed to hug closely, so as to be as little in sight as possible. There were two eggs in the nest—if nest it could be called—as the eggs lay on the ground unprotected, save by the dry leaves. They were about the size of doves' eggs, with white ground work, delicately mottled with brown, and were of peculiar form, both ends being nearly alike. When we moved away from the place the bird returned close to the nest, but did not take her place again on the eggs until we left the premises. The whippoorwills are very unequally distributed. In several counties in the central part of the State none are to be found. They seem partial to oak-timbered lands, with a sprinkling of pitch pine. One seldom finds them in beech and maple woods. The whippoorwill and night hawk are often mistaken for each other, and thought by many to be one and the same bird. They resemble each other in form and much in color, excepting that the plumage of the former is more strongly marked and the tail is round, the middle quills being the longest.

The night hawk has a white patch on the throat, and white spots on each of the five outer wing primaries, making a conspicuous white bar across the middle of each wing. The tail is forked like that of the swallow. They are similar in many of their habits, as neither of them makes a nest, but deposits two eggs on a flat sur-

face—the whippoorwills, in the woods, and the night hawks, usually on city buildings. They both make a guttural noise while on the wing, although the night hawk never sings. They are both nocturnal in their habits, and generally fly noiselessly like the owls. The whippoorwills are more solitary in their habits, and prefer the deeper woods, though occasionally they will venture near a farm house after dark, when they will sing their monotonous and plaintive song during half the night. The night hawk is oftener heard in the city than elsewhere, during summer evenings, as he circles and dives through the air in search of insects, which he takes on the wing.

After leaving the whippoorwill's nest, our guide, who had fulfilled his mission and become quite communicative, said he "might as well leave us and follow the creek down through the woods and meadows, 'suckering,' and if the suckers were shy, he knew where there were lots of big fool frogs waiting to be catched."

It was in this woods, years ago, that I first heard the winter wren. Since then I have heard the song so frequently here that I am always on the tip-toe of expectation when in this swamp, so on this occasion my friend and I went in different directions, he in search of his favorite flower, the showy lady's slipper, and I to find the little musical king of the woods. Soon I heard my friend's enthusiastic shout, "Come! I've found *my* winter wren! I've found *my* winter wren!" I met him with hands full of the most showy flower of the woods. It was a find, so early in the season, but the wren, not to

be outdone by a blossom, suddenly startled us with his wild, sweet song, only a short distance away, when he fairly excelled himself, filling the place with wild melody.

The people with whom I was staying have a tame crow with a history worth recording. About a year ago the boys got possession of the bird soon after it had left the nest. It was so cunning that they enjoyed playing tricks on it. These were harmless, but the crow resented the indignities, and cut their acquaintance, and betook itself to the boys' father, who is noted for his kindliness to all creatures. His new master called his black pet Peter, a name which the recipient readily recognized, and always answered to unless called when he was angry. Peter followed his master about the farm, to the woods, and to the neighbors. He sometimes made excursions about the neighborhood alone, generally returning before dark. Last fall he got caught out in a big snow storm, and did not, as usual, return at night. As days went by and no news from Peter, the family concluded he had either been killed, or had gone off with other crows.

The snow had lain on the ground all winter, and been exceedingly deep, but in March it went off suddenly with a heavy rain. Soon after the ground became bare, the master, who was at work in the orchard, saw, at a little distance, a poor, tired, bedraggled crow walking and hobbling along towards him. A second glance showed it to be Peter, the prodigal. Instantly he had the poor creature on his arm, caressing him as tenderly

as though it were a returning truant boy. Peter was beside himself with joy at the meeting, and tried his best to express his affection for his friend. It seemed too bad that he was not fully able to tell his adventures and the cause of his absence, but these, through other sources, were learned afterwards. During that December snow storm, Peter was blown to the ground at Clarence, several miles from his home. A boy caught him, and not knowing to whom he belonged, clipped short his wings to prevent his flying off. The poor, homesick bird could not walk through the deep snow, neither could he fly, so he waited patiently through the winter till the ground was bare, and then started afoot on his journey. How he found his unknown way so many miles through fields and woods and across roads will remain a mystery. Although again able to fly, he will not venture off the premises, but attaches himself more closely than ever to his old friend.

While waiting at the station, on the return to the city, my attention was called to some curious work of a pair of robins, showing that man is not the only animal that makes mistakes. The railroad water tank is a large one and elevated. It rests on a platform supported by a dozen joists, which rest on larger beams, leaving eleven spaces. A pair of robins commenced a nest in one of these, but had not proceeded far with the work when they doubtless became confused with the resemblance of the spaces and started another nest in the next place; then another, and another, until each space was occupied with a nest or a part of one. The birds worked

faithfully at these for several weeks, entirely finishing some and leaving others in different stages of construction.

Eggs were deposited in at least three, but the birds were unable to complete the contracts they had undertaken, and finally deserted their immense folly.

A SUMMER DRIVE IN THE LAKE COUNTRY.

In most books the I, or first person, is omitted; in this it will be retained: that, in respect to egotism, is the main difference. We commonly do not remember that it is, after all, always the first person that is speaking. I should not talk so much about myself if there were anybody else whom I knew as well. Unfortunately I am confined to this theme by the narrowness of my experience.

THOREAU'S "WALDEN."

A SUMMER DRIVE IN THE LAKE COUNTRY.

I.

There are four in our little party, Emily, 'Anemone', Lady Bess and the writer. Emily is my wife, 'Anemone' our little daughter, and Lady Bess the horse. It will be necessary to describe only the last mentioned, as she is the "active member of the firm," and will do the heft of the work, and to her the others of the party will be largely indebted for the pleasures on the road. 'Lady Bess' is a young Messenger mare, rangey, graceful, fleet-footed and as black as night; her proud and lofty step secured her the name. She takes the place of Max, who for a few weeks will literally "live in clover." 'Bess' is nervous, high-strung and watchful, but gentle as a kitten. She is a free driver, and goes with a slack check-rein and without blinds on the bridle. We might lay the lines over the dash, and she would keep the road and give the proper share to teams that we might meet. I am almost inclined to think that she has learned to distinguish the songs of some of the birds, as she stops so readily and pricks up her ears while we listen to some pleasant singer by the roadside. She has learned to pull up under shade trees in hot days, and say in her

horse language, "Had we not better rest a few minutes under this tree while you pick me a mouthful of tender grass, or gather for yourselves some of those pretty elder blossoms or wild roses by the fence?" She seldom appeals in vain, as we are all in full sympathy with her, believing that she appreciates the kindness, and more than repays all extra consideration. There is nothing she enjoys more than a day's picnicking in the woods, where at lunch time she can stand near us and eat her feed of oats while we sit on the ground eating dinner.

Our journey is to take a month or more, much of it over familiar ground, and through several counties of Western and Central New York. Our longest stopping places are to be Honeoye Falls, Mount Morris, Portage, Hammondsport, Cortland and Ithaca. On the way we are to take in—figuratively of course—several of the beautiful lakes that give such a charm to the scenery of this part of the State. We are seeking pure air, sunshine and the fragrance of growing things, which we shall find much more abundantly by this manner of travel than by any other. We shall avoid what Ruskin calls the great mistakes of travel, "Rushing by waving meadows and green cornfields, on the cars, to have the longer time to walk on heated pavements." We are not in search of art galleries, cathedrals or ancient ruins. The pictures will be such as are common in country highways and byways—loads of hay and other farm products, men and women going to or returning from market, stages filled with dusty-looking passengers, and people traveling in carriages or on horseback.

We shall see orchards and meadows, flocks of sheep, grazing young cattle, and cows coming from pasture. We shall hear the singing of birds, and in the newer places, the rhythmical clinking of the scythe and whetstone.

Our fourth day from home finds us less than fifty miles from Buffalo. Although in July everything wears the look of June. The fields were never fresher nor the woods greener. The sweet elders are just beginning to show their creamy white blossoms, and the tall timothy is in its first purple bloom. The farmer may worry about the late season and the backward corn, but the travelers who were held in the city until July feel grateful for the tardy appearance of the dry, sultry days. Hardly had we left the pavements of the city when the tinkling notes of the bobolinks and the liquid strains of the song sparrows fell gratefully on the ear, a pleasant welcome to the country roads, while the fragrance of the wild roses and the stronger scent of the new mown hay were in pleasant contrast to the odors of the cattle pens and rendering establishments that we passed through at East Buffalo. The roads were a little heavy, but the late rains had entirely laid the dust, and the morning air was as pure and sweet as one ever needs to breathe. Farmers were busy in the fields, a few making hay, but more with plow and hoe were coaxing their backward corn. Not many people were on the road. A few couples of young folks were on their way to the city to attend a celebration. Among

them were "David and Dora" who seemed to see little but each other's eyes. He, guarding her from the perils of the road with an arm about her waist, while she rested a hand lovingly on his knee. Some barefooted children were traveling towards the city with little baskets of wild strawberries to sell. Nothing on the way showed more plainly its "ear marks" than a country school-house with its well-trodden grounds and little stone play-houses about it. By the road were holes in the dirt where the smaller children had made mud pies. The sides of the house had been whittled and marked by jack-knives, and a panel was broken out of the front door. Through this open door rows of children could be seen sitting on hard seats—harder than common these long summer days, with everything tempting them to come outside. The little schoolmam, with book and ruler in hand, stood before a class. Evidently she had a morning caller, as a woman wearing a bonnet sat in a chair near the door. Was she there to note the progress of her young hopefuls, or did she come to remonstrate against some chastisement for a school offense? It is high time, Mr. Commissioners, for both teachers and scholars to be out of school enjoying the summer vacation.

All along the way we heard robins singing, and as we passed meadows, bobolinks would start up out of the grass, flutter across the meadows or alight on telegraph poles, all the time singing us a welcome to the country.

The most conspicuous bird at this season is the vesper sparrow, or grass finch. Although a field bird, he has

a great liking for the roadsides where he can see travel and still have his fields for refuge if molested. He often sings from a fence stake until you are opposite him, when he will fly ahead three or four lengths of the fence, and sing again. If observed too closely, he will drop into the grass, and the song will be taken up by another a little distance away. The house wrens are very musical just now, as it is their nesting season. We make many a halt to listen to their rapid, rippling songs. In a wild cherry tree by the roadside one was singing and scolding by turns. The scolding part indicated family relations. He was on a dry limb within reach of one standing on the fence. A little examination revealed a small, smooth hole in the dead branch just above him, and a smart rap brought out the female from her nest in this cavity. Immediately both birds let fall upon us such a shower of epithets—probably all uncomplimentary—that we hurridly left them alone with their household cares. The pleasantest episode of the morning drive was the performance of a cat-bird. Several times this season, as we have passed a thicket by a ravine, this cat-bird has made his appearance and sung for us as long as we would listen. On this occasion he failed to "show up" when we stopped opposite the thicket, so I tried the usual successful method of calling him out. A few coaxing words, and I heard his cat call; then he suddenly appeared on a brush heap by the road and commenced to sing. He fairly excelled himself. He whistled, warbled, trilled and talked, excelling any mocking bird that I ever heard, and as I

drove away it was with a feeling of wonder and increased admiration for this sociable and skilled musician.

At Alden we spent a day very pleasantly botanizing in the vicinity, with Dr. Wende, who occasionally takes a day from his extensive practice to reinvigorate himself in the pursuit of his favorite study. On this occasion we found many things of interest among the birds and plants—among the latter, the beautiful (*Calopogon pulchellus*). We found two nests of brown thrashers, both with young birds, and two or three plovers' nests.

As we passed through the Crittenden woods, on our journey early the next morning, we stopped awhile to hear the wood thrushes, which sing here from April to August. The road from Corfu to the "Brick House," thence to Pembroke, is a delightful one, and the farmers we met along the way were pleasant and courteous. Several were at work on the road, and each had a pleasant word of salutation. One remarked that "they were mending their ways," another that "we must be charitable towards their highways, as they would be better on our return." It is a pleasant custom on the road to exchange the time of day, or to give a friendly salutation by word or gesture. It costs nothing, and speaks much. It is a species of friendly culture not to be overlooked, and the man who gives it has at least one mark of a gentleman, good nature, while the one who refuses to return it, is either a boor or a bear. One man alone forgot for a moment his amiability. We were on a cross-road and wished to strike the Buffalo and Batavia turnpike a few miles from the latter place. To

our inquiries of a man coming out of a blacksmith shop, we were told to "go a certain distance and turn to the left." As this would take us back again, I innocently inquired, "Why not turn to the right?" The burly man straightened himself up and shouted, "Turn to the right if you wish to; what the d—l to you s'pose I care which way you turn?" "But I wish to go to Batavia," said I. "Then why didn't you say so?" returned he, a little mollified.

The further we proceed east, the better appear the crops. In the town of Alabama, and in this of Oakfield, the wheat fields are extensive, and present a fine appearance.

During the past two days we have been stopping with our friend, the Captain, proprietor of the "Old Orchard." The orchard is still full of objects of interest. A part of it is as wild and leafy as the primitive forest. This morning I found in blossom the largest white violets, and the little geranium, and I counted fifteen species of wild flowers usually found in the woods. The orchard is full of singing birds. The purple finch, warbling vireo, gold finch, cat-bird, and robin have all sung this morning in the tree under which I am writing The squirrels are more plentiful than ever, and three or four have appeared together in one tree; they chitter and cackle, bark and squeal as they scamper up and down after one another, or sit erect eating the young apples, which they hold to their mouths as would a child. The good old gentleman will not have any of them killed, although they make

considerable havoc among the apples. Along the garden fence is an extensive row of red and white roses, just at their best; and such roses! How it gladdens one's heart to look at them! If they were hidden from sight, their heavy fragrance would betray their presence.

I wish I could paint the picture that lies about me; the old orchard that has dropped its apples for three generations, the bank of roses flanking the lawn, the cosy log house almost covered with vines, the waving fields of wheat stretching away in the distance, with fine maple woods in the background. It would not be complete without a sketch of the fine-faced old gentleman in his arm chair on the lawn, with his two faithful dogs lying at his feet; and then a pitcher of the well-preserved cider from the cellar would give tone to the picture. On the end of a log at the corner of the house was a robin's nest with four eggs. We were admiring it yesterday, but this morning both nest and eggs had disappeared. A little frouzy-headed boy that they call "Pat" was hanging about the premises, and I asked him about the nest. "I took it, sir, for they are bad craturs with the cherries." To the question of what he did with the eggs, he answered promptly, "Sure, and I ated 'em."

To-morrow we go to Honeoye Falls.

II.

Early Monday morning we were again on the journey. The day was all that could be desired, pleasant, with a cool breeze fragrant with blowing over wheat and grass fields. Lady Bess was in high spirits, and measured off the miles without show of weariness. There are few pleasanter roads than the one from Oakfield to Honeoye Falls. It is almost straight, six rods wide, and well kept. It is a part of the old Albany and Buffalo turnpike, and before the railroads traversed this region it must have been a very prominent thoroughfare for all kinds of travel. The country through which it passes is one of the finest in the State—Genesee, Livingston and Monroe counties. All kinds of crops are looking well, especially wheat, which will soon be ready for the harvest. In Monroe County farmers are anticipating a yield of twenty-five to forty bushels per acre. Large areas of potatoes are growing and look promising. This is the great potato region of the State, both in quantity and quality. The meadows are yielding an abundant crop of hay, much of it already secured. Early fruits are plentiful, especially cherries, which are now being marketed. In Mendon, this county, a provident farmer a few years ago planted a row of cherry trees outside the road fence in front of his premises, and this year these wayside trees have produced for market seventy-five bushels, and yielded abundantly to travelers, who have often refreshed themselves with the luscious fruit.

Besides the profit, the trees make a grateful shade in the street, and add a pleasant feature to the landscape.

Our route to-day was through the pleasant villages of Batavia, Stafford, Le Roy, Caledonia, Avon, East Avon and Lima. The extensive trout ponds at Caledonia were objects of interest, but the beautiful fish would have looked more attractive in their wild state where they could exercise their taste about being caught. It would be tame sport fishing in these ponds for trout, much like a chase after tame foxes.

In passing a corn field 'Anemone' espied a "scare-crow" still swinging from a pole. The effigy, as large as life, and wearing an old stove-pipe hat, caught her fancy, and turning to me she said, "When you get home, papa, you must make me a 'scare-crow.'" Her mother asked her "what she could do with a 'scare-crow'?" "Oh," the child innocently replied, "but he will also get me a *crow* to *scare*."

At Avon we rested several hours and partook of a good dinner at the hotel, where we found several acquaintances from Buffalo staying. Of course we had to drink of the attractive-looking water, which, like leeks, breaks the promise when you smell or taste it. A little of it goes a long ways, and it was some time before any of us were thirsty enough to hanker after Avon Springs water, however highly recommended as the true elixir.

When we reached the high hills between the two Avons a shower suddenly burst upon us, but as usual, in such cases, a good Samaritan farmer standing in his

lawn beckoned us to drive into the carriage house till the storm had passed over. The proprietor of the well-conditioned estate was an intelligent and social gentleman, and the unpremeditated call proved an agreeable episode of the day's journey. One of the pleasantest acquaintances that we have formed took place in this way. A heavy shower caught us several miles from a hotel. A kindly-looking man was at the gate, and seeing that the rain would be a drencher, told us to drive into the barn, which was open and comfortable. The shower turned into an afternoon rain, but the good man and woman of the house most hospitably entertained us till the next morning, and then sent us on our way rejoicing that we had found such companionable people among strangers.

In the late afternoon we found a pleasant unfenced woods, in which were quantities of wild red raspberries. It seemed such a good place for a picnic that a halt was made. Lady Bess was ready and willing, as usual, to participate.

We always carry a feed of oats, so that if caught too far from a hotel when the horse needs a bite, we are independent in this matter. It took but a few moments to fill our cups with berries, whose aroma and flavor surpasses any that are ever grown in gardens. These, and a few crackers, with a bottle of light wine, made us a delicious little lunch, which many picnickers on a larger scale might have envied. The little indigo birds sang continuously above us, and a pair of yellow hammers alighted on a neighboring stub to inspect our improvised

table. They saluted us a few times with their curious and rapidly uttered "wake up," "wake up," and then with that shrill scream flew away. On a little hillside across the road, three woodchucks came out of their burrows and fed awhile on the clover. These homely though wholesome burrowing animals are very cleanly in their eating habits, living almost entirely on clover, unless they can find growing beans, of which they are very fond. They are grotesque in their movements, and billow along one end at a time as awkwardly as a moving caterpillar. Few people are aware that when fat and properly cooked these animals form a most enviable dish that rivals in flavor the most savory lamb. Woodchucks and muskrats had a peculiar charm for Thoreau, and the sight of either always awakened in him the liveliest interest.

The roadsides are just now beautified as never earlier or later, by the sweet elders, which are in full blossom. Their creamy white flowers are very showy and fragrant. We miss them along many of the model farms, and often turn aside and travel miles of byroads where these beautiful bushes are allowed to grow wild and luxuriant, a joy to man and bird. There are few ornamental bushes growing in city lawns and gardens that can compare in beauty and fragrance with this vagrant of the hedges and highways. Like the clover and dandelions, they are so common and without cost that many people forget to admire them; but were they blotted from the earth, or could they be obtained only

at great price, how eagerly would they be sought after. I remember traveling in Wisconsin once in company with some people who had formerly lived in New England; one of the ladies said, "Oh, if I could only see a hedge of elder bushes on the way, or hear the song of a bobolink, I might get over my home-sickness."

After a few days passed very pleasantly with friends at Honeoye Falls, we drove to Hemlock Lake, a distance of twelve miles. The drive is a most delightful one over a smooth road, through a fine country. As you leave Lima the blue hills of Ontario are in sight, some of them so far distant that they seem to meet in the clouds beyond. In many places the road is bordered by the cichorium, a pleasing flower of brightest blue. On arriving at the lake we found the best of quarters at the St. James. This house is on the east side of the lake, a mile from the foot, and has a fine view of the shores and surrounding country. It is comparatively new, and although the largest in the region, is often taxed to its full capacity. The proprietors are most courteous and accommodating, making our stay very agreeable. There are many cottages near the foot and head of the lake, and a few at intervening points. A good road runs near the water the entire length on the east side, while on the west many of the cottages are only accessible by little boats, or by foot paths through the woods on the steep hillsides. Most of the cottages are owned by people from Rochester, Dansville and Honeoye Falls. A few Buffalo people are stopping here this summer, but most of our acquaintances here are from Rochester.

Five steamboats make frequent trips around the lake, stopping at the few landings, but more frequently the passengers are taken off the steamers and landed by little boats. We have enjoyed the hospitality of young Capt. Tefft on board the little steamer that bears his name, and shall carry away very pleasant remembrances of the many courtesies he has shown us during our stay here.

Sunday was a gala day for the young folks of the surrounding country. They come to the lake by scores, and probably by hundreds, in carriages, and always in couples. The young men wore their best clothes, and the young ladies, some of them very pretty, were abundantly arrayed in their summer drapery of sashes and bonnet ribbons. They seemed to be very clever people, and most of the young men led the girls about by the hand or took their arms as they promenaded about the premises. Many of them had dinner at the hotel, while others, less extravagant, refreshed themselves with lemonade and ice cream. Of course the public piano had its share to bear on the occasion, and during the afternoon and evening the parlors rang with the blended voices of belles and beaux, and made one think of the "evening sings," as described in "Cape Cod Folks." One cynical city lady made some ungracious remarks about "unmusical people always and eternally trying to make music in public places." Yet I think this rustic though well-behaved company had a fair share of pleasure. An hour later and we shall be on our way to Mount Morris.

III.

A zigzag road, rising on to a high hill, leads from Hemlock Lake to Livonia Station, a distance of four miles. Many of the views along the way are fine. As you round the foot of the lake the Shore House is in view, a mile above the outlet on the west, and the Jaques House at the extreme foot. Here are several very pleasantly situated cottages, all of which appeared to be occupied. Six miles from Livonia is Lakeville, at the foot of Conesus Lake, another beautiful sheet of water, a little less in extent than Hemlock.

The drives along the western shore and by Long Point is a delightful one, and many places, both on this and the opposite shore, reveal picturesque nooks and shaded points running out into the water that ere long will be covered with cottages and summer hotels, as the tide of travel and picnicking is turning rapidly toward this gem among the hills.

The morning was warm, and we frequently stopped under the shade trees to rest the horse and to admire the scenery. We have stopped on so many bridges to get the breeze that always sweeps up each little valley and ravine that Bess has learned the trick, and is sure to halt whenever we reach a bridge, especially if it is in the shade.

A bridge always has a charm for the traveler, as the surroundings are generally picturesque, and birds are found abundantly in the vicinity. We look to see the Phebe bird fly out when the horse's feet strike the

planks; and robins, yellow birds, sparrows, and orioles are frequently seen bathing in the same pool near by. It is amusing to see the swallows come and dip their straws in the water and then fly away to their nests. Some birds have sufficient saliva to moisten the gathered materials, but the barn swallows dip many of the sticks and straws in water before arranging them in the outer parts of their nests. The chimney swallows do not pick up the material for their houses, but snap the dry twigs from the trees. These swallows gather all their building materials on the wing, generally snapping the dry twigs from the branches of the locust tree. My attention was first called to this curious fact in the old cemetery on North Street, in company with Mr. Cowell. We were watching the aerial movements of these birds, when one of them apparently tried to light on the leafless top of a tree. She hovered a minute, balancing herself, then snapped a twig and flew away. In two or three minutes she returned in company with her mate, and during an hour that we watched them they repeated the operation a score or more of times.

Sometimes they failed to break the stick at the first trial, and after a short circle in the air they renewed their efforts, always ending in success. Since then I have seen many pairs engaged in the same labor.

From Geneseo, five or six miles up the river, brings one in sight of the beautiful village of Mount Morris. The flats here are about two miles wide, and the richest in the State. Although the French statesman Talleyrand

visited this spot almost a century ago, when the country was comparatively a wilderness, his eye took in the great beauty, and he saw the wonderful possibilities in store when he exclaimed, "This is the loveliest spot God ever made, and a region of the greatest promise." Wheat, broom corn, and sweet corn cover thousands of acres, stretching across the valley and away towards the south as far as the eye can reach. In one field we saw sixteen horses followed by cultivators. The sweet corn will principally go into the canning houses, of which there are two large establishments here.

Mount Morris is abundantly supplied with railroads. The Erie, Lackawanna, and Genesee Valley roads run through the place, the Lackawanna shortening the distance to Buffalo, and the Valley road making Rochester more accessible.

Fortunately for us we are the guests of Henry McNair, and during the week we alternate between his old homestead, "Elmwood" and his present home, "Oak Croft;" the former three miles up the valley, and the latter in the village. Our host is a character, and has a history, the incidents of which, were they collected and written, would fill a most readable volume, stranger and fuller of interest than most fiction. A man of the "old school," courteous, generous, and intrepid, he is a most entertaining host. His twenty odd years spent in Australia were full of enterprise and adventure. He was one of the first to recognize the country as one adapted to fruit culture, and a peach orchard which he planted there became the wonder of the inhabitants in

the vicinity, as it afterward proved a source of profit to the owner. When we get the better of his modesty and succeed in persuading him to recite some of the thrilling scenes which he saw enacted in that far-off gold producing country, it is better than the stories of the "Swiss Family Robinson."

The homestead purchased from the Government by his grandfather, containing about 2,000 acres of the choice valley land, is still in the possession of the family, and retains many landmarks commemorative of the struggle of the early settlers and wild beasts and Indians. Mary Jemison, the 'white woman,' who for several years had her home in the woods at the foot of 'Squawkie Hill,' was a frequent visitor at the house of the McNairs, and the older members of the family were quite familiar with many of the incidents of her strange and eventful life. The McNair farm was for many years the favorite camping grounds of the Indians, and every spring the ploughshare turns up scores of arrow heads, hatchets, stone pestles, and other implements of chase and camp. Built into the wall of a well, on the premises of Charles McNair, is a large, round "hard head," marked and scarred by axe and hammer. If this stone could speak, among other things it might tell the following story: In one of their skirmishes with the whites, the Indians captured several prisoners, most of whom were put to death by torture. Among the captured was a blacksmith named Raddix, a man of great strength and of athletic proportions. In the hope of eventually gaining his liberty,

he made known his power of usefulness to the Indians, who immediately turned his services to account. They compelled him to carry this immense stone far back into the deep woods, and under guard, in a rude cabin, to use it as an anvil. Here for many months he hammered out rude implements for his wily captors. He finally escaped and made his way back to his friends, but so emaciated with hard work and poor fare that he was not at first recognized by his friends.

Mrs. McNair is an enthusiastic and practical botanist, and is the local correspondent for various botanical clubs in the State. Under her guidance we have ransacked miles of woods, fields, and ravines in quest of rare plants and flowers.

The flora of Mount Morris and vicinity is one of the richest in the State. The showy orange-colored flower, butterfly weed (*Asclepias tuberosa*), grows here in great abundance. Also that rare and interesting plant Pinguicula vulgaris. On Murray Hill opposite, the high banks, we find the grass of Parnassus (*Parnassia Caroliniana*), and near by are broad patches of the delicate starry catchfly (*Silene stellata*) adorning this notable hillside. In the vicinity we find the following, some of them common, many of them rare: Sickle-pod (*Arabis Canadensis*), greenbriar (*Smilax hispida*), celandine (*Chelidonium majus*), henbane (*Hyoscyamus niger*), dogbane (*Apocynum cannabinum*), horse balm (*Collinsonia Canadensis*), bellwort (*Campanula rotundifolia*), monkey flower (*Mimulus ringens*), skullcap (*Scutellaria lateriflora*), and that elegant milkweed (*Asclepias*

quadrifolia). Some of these were out of blossom, as of course is the arbutus, which is very plentiful in the season on Murray Hill. That large, showy lily (*Lillium superbum*), with its nodding orange blossoms, is very abundant in many fields here. I found one stalk with eighteen symmetrical flowers.

IV.

The drive from Mount Morris to Silver Lake, much of the way along the high banks of the Genesee River, is full of objects of interest. Soon after crossing the long covered bridge we reach the foot of Squawkie Hill. Here we drive in a winding byway into the woods to get a draught of water from Mary Jemison's Spring. One can still trace the path from the spring to where her wigwam stood, and as if to be in keeping with the old tradition, the beautiful Indian hemp is growing about the premises. At the top of Squawkie Hill the road reaches the very edge of the precipice, and one gets the finest view to be had along the whole river shore. Although the Genesee runs through an old and thickly settled part of the State, yet its wonderfully fine and diversified scenery seems to have been overlooked, and to have received far less notice than it deserves. One needs to drive along the banks, or in a canoe float down its rapidly changing waters, to appreciate it. From its source in Pennsylvania to Portage-

ville it is like a mountain brook, some of the way dashing down declivities among the rocks, and then again flowing gently through fertile fields. At Portage it enters a deep and rocky gorge, then within a few miles leaps three noted falls; from these falls to Mount Morris the stream lies deep in a wooded and rocky canon, and for miles its waters are inaccessible from either shore. At Mount Morris it again emerges into an open country and flows quietly through the richest valley of the State, till reaching Rochester it tumbles over rapids and down the upper and lower falls and enters a five-mile gorge, which for picturesqueness is a miniature of the lower Niagara.

Silver Lake is well named, as the contour of the surrounding hills is such as to give its waters a peculiarly silver appearance in the sunlight, and its surface is often entirely unruffled. What a travesty on this peaceful lake to make it the home of the monster serpent, which for a season was the "seven days' wonder" of the world. I remember one New York reporter wrote of this harmless, manufactured automaton: "Each morning and evening this water-devil can be seen lashing the waters into such a fury that for rods away they become a seething, boiling cauldron of fiery foam." The Walker House, in the grove, is an excellent hotel, and is presided over by a genial host and hostess. The long, deep piazza, overhung with vines, and overlooking the lake, is an inviting place to while away the hot summer days, and many who have enjoyed it for a brief time this season have booked it

for a longer stay the coming summer. Being near Portage, the temptation was irresistible to turn aside for a brief period and visit these beloved haunts where so many birds sing so late in the season. We reached Portageville just at sunset, and as we were ascending the hill that leads to the Cascade House the notes of one solitary wood thrush floated on the evening air; no other sound came from the woods. It seemed for the hour as if the birds had all left this favorite locality, or had stopped singing for the season; but early next morning, during a walk in the woods east of the hotel, we heard the wood thrush, cheewink, cat-bird, golden-crowned thrush, Hudsonian and quavering sparrows and both the red-eyed and solitary vireos; and later in the day, the indigo bird, purple finch, song sparrow, and scarlet tanager added their voices to the summer chorus. It was pay many fold for the extra journey. In many respects this charming retreat surpasses any other in its attractions for the naturalist. The flora is more abundant and varied, while the song birds are here in greater numbers than in any other locality of the State. What a field this would have been for Thoreau. What summer idyls he would have written of the ravine, and of the upper and lower Letchworth woods, so full of rare plants and interesting animal life. I often wonder that Burroughs does not substitute for some of his barren pitch pine and scrub oak sections this favored region in which to make excursions. Like "Wordsworth's Yarrow," Portage will bear visiting and revisiting.

The commodious hotel is pleasantly situated, and commands a view of most delightful scenery, on the one side wild and picturesque, on the other pastoral and artistic.

You have only to travel a few rods to either woods to find plants that in other localities could not be collected in twice the area, while such birds as the scarlet tanager, purple finch, and Hudsonion sparrows come and sing in the lawn at the very doors of the hotel, and in the season of song you can sit on the veranda and hear the golden-crowned, the wood and Wilson's thrushes which make their home in both the east and west woods. Just across the river, and up among the hemlocks and chestnuts, I have listened hours to my silver-throated "Pan," the winter wren. This forest is my 'Mecca,' my 'Walden Pond,' and the days here are all too short, and the spaces between visits too long, and whenever I come, I am sorry that I did not come sooner, and arrange to stay longer.

It is a two days' journey from Portage to Naples, near the head of Canandaigua Lake; the second day was partially along the western shore of Honeoye Lake, another pleasant sheet of water lying deep in the bosom of the hills. The shores are less bold and rocky than those of Hemlock, but equally picturesque and well wooded. The fishing is said to be extremely good here, but the fish are of poor quality in hot weather, as the water is usually warm and more or less roily. A shower of considerable severity overtook us midway up the shore, and the most generous shelter in reach was a huge basswood that overhung the road. It seemed for a time as

if the whole artillery of heaven was concentrated near the spot, and even our trusty horse showed signs of terror as the flashes of lightning fell in blinding sheets followed by peals of thunder that shook the hills. During the afternoon we routed a flock of young quails that were feeding by the roadside with the old birds; although the brood was large, and it seemed as though we could easily pick up a half dozen, they scattered so quickly and effectually that a half hour's search failed to reveal one of them; but as soon as we drove a short distance, one after another could be seen scudding across the road in answer to the turkey calls of the old ones. About as interesting little creatures as we see along the way are the chipmunks and red squirrels that dodge behind rails and scamper on the fences, sometimes stopping just ahead of us long enough to eat an apple or head of wheat, and then with a chipper of glee run along again, sometimes keeping pace with us for many rods. On this road were many patches of the showy Oswego tea (*Monarda didyma*). At a little distance its bright crimson heads show even prettier than the cardinal flower, which also grows in the same vicinity, and in many respects it rivals the latter flower even on a closer inspection. All the labiates now begin to show color, and some of them are really pretty, while the swails and low grounds are in many places covered with the Joe pye weed (*Eupatorium-purpureum*) and the purple milkweed (*Asclepias purpurascens*). Nature is ever generous at all seasons in ornamenting by some means her waste

places. When vegetation ceases, then beautiful ice and snow will adorn the earth ; cell life will only give place to crystallization. The rain had left the roads heavy, and it was near dark when we drove around and down the long steep hill through the woods to the village, where we hoped to find a quiet resting-place after an unusually hard day's ride. It has been a pleasure heretofore to chronicle the best of entertainment at all our stopping places, and we have often left with a feeling of indebtedness for courtesies and favors generously bestowed by both friends and strangers on the road. Here our reception was interesting and our entertainment phenomenal. As we reined up to the hotel to which we had been directed on the way, a tall, thin man of the hair-pin type met us at the carriage and almost embraced us in his eager welcome ; he was so affectionately brotherly that I almost looked to hear him ask for the "strawberry mark on some arm" in recognition of a long lost kindred. "Were we tired ? Would we stop with him for the night ? What a fine horse, and what an easy carriage ! Were we traveling for pleasure or business ? His was a temperance house, and just the place for tired man and beast; did we wish supper, etc., etc. ?" to all of which we could only answer that "we would stay with him, as we were very tired, and quite hungry and a little thirsty," and suggested that at least "a cup of strong tea would be very acceptable." As our room was not in readiness, we were ushered into the public parlor to await supper. An hour latter the tall man made his appearance and announced that "It would not be convenient to get a

warm supper, as it was wash-day with the women folks." Nearly another hour and supper was announced, and "such a supper!" not like Bob Cratchit's, but still, "such a supper!" Few words would name the dishes, but in the mouth of other than Christians these words would necessarily be strong and emphatic. We only demurred at the tea, and asked for headache's sake that it be a little stronger; it came back still weaker, when we suggested to the good woman—who, by the way, was as thick as the man was thin—that "probably she had forgotten to put the tea in the pot, and had only steeped the water," but like "Barmody's soup," the liquid seemed to grow thin with each additional cooking. The hair-pin looking man, who had hen-hussied himself into the room, catching part of the colloquy, wittily (?) remarked, "This is a temperance house, this is, and probably the women folks are opposed to anything strong." The sickly-looking butter testified otherwise, but like most obituary poetry, the occasion had a ludicrous side that partially made amends for physical discomfort. At a late hour we were shown the room, which had been "put to rights," and preparations were made for slumber; they were only preparations, however, for what with unaired feather bed and pillows, whose strength only rivaled the butter and put to shame the tea, and with a swarm of mosquitoes and other hungry little inhabitants, the rest and sleep were not quite what are "promised to the just." One was reminded of the inscription on a Swedish inn, "You will find at Trolhate excellent beds, bread, meat and wine—pro-

vided you bring them with you." I think it was William Black, the novelist, who said, "When you have dined on ham and eggs and whiskey the night before, to breakfast on ham and eggs and *tea* is a great relief the morning after," but with such a supper and tea as were given us last night, a breakfast like Black's dinner would have been welcome by at least one member of the party.

Pretty early the following morning we paid the bill, which was a round one, and went on our way weak, but rejoicing. Temperance indeed is a good thing, but sad as it may seem, truth compels the traveler to chronicle the fact that excellent temperance hotels are even fewer and further between than angels' visits.

In contrast to this 'inn,' I remember another old hotel, or country tavern as it was long called, which we have always found so full of real comfort and good living, that I approach it with a kind of hungry expectancy. It was one hot July morning, an hour or so before noon, that we first came in sight of the little hamlet in which this house stands. It was more country than village. A large brook of clear, shining water, overhung with thick shade trees, ran along one side of the principal street. A long rambling hotel with broad verandas, and extensive outlying barns and sheds, attracted my attention. An old couple, landlord and landlady, sat on the veranda in large rocking chairs. They greeted us with a cheerful good-morning as we drove up in front of the house, and to the request for dinner, the kindly faced old lady said that "they had nearly

given up keeping hotel, but if we could put up with their homely fare, we should come in and let the boy take care of the horse." First, "the little girl must have a glass of milk;" then said the motherly woman, "There is a large airy room up stairs, with a bed and sofa, where you can all take a nice little nap to rest yourselves for dinner." The room was sweet and tidy, and when called to dinner, we were all as fresh as in early morning, and twice as hungry.

It only grieved us that the good couple should find it in their hearts to make apologies for such a dinner as they set before us. Tender, juicy, sugar-cured ham and fresh eggs; the lightest of home-made bread, with sweet grass butter yellow as gold; peas and lettuce just from the garden; cool cucumbers that were growing on the vines ten minutes before; a cup of coffee, fragrant and the color of amber; oolong tea in which the strength and aroma emulated each other. This would seem enough to satisfy even a connoisseur of the table, but the dinner was not to be finished without red raspberries with thick cream, and a generous strawberry shortcake. The pleasant, cordial manner of providing the entertainment corresponded with the wholesome things provided.

We lingered till late in the afternoon, and left regretfully this pleasant, restful old country tavern; nor is it strange that we have driven over that hilly road, considerably out of our route several times since, to enjoy the entertainment provided by this real landlord and landlady? They compliment us with the remark that

"they too look forward pleasantly to our annual "stop over" with them.

Perhaps I have dwelt too long over these two 'wayside' places, but they are the types of the two extremes which travelers must find in a country where so many men think they can 'keep hotel.'

Naples is a lovely village, lying between wooded hills, in a pleasant, fertile valley and shows signs of thrift and enterprise. From here to Canandaigua Lake, a distance of four or five miles, much of the cleared land is covered with vineyards.

V.

Our route from Naples to Hammondsport, by the way of Bath, was an unfamiliar one. The first mile or two lay through a delightful woods, much of it pine and hemlock. The veeries and wood thrushes were singing their morning hymns, and the warblers were having a jubilee in the evergreens. The early morning was perfect, and the pleasant surroundings soon put us all again on good terms with the world. The evening before we had passed a party of Gypsies camping at the lower end of the woods. They were a hard-looking set, men, women, children and dogs. The redeeming features were three or four fine looking horses and one or two good traveling wagons. They exercised good taste in choosing this charming spot in which to light their

camp-fires. We expected to see them making preparations for breakfast, but early as it was, we found them missing. Like others of their tribe, "they had folded their tents and quietly stolen away." The place was so inviting that the nomad spirit took possession of us, and we determined also for a time to be Gypsies. We were not at all satisfied that the "active member of the firm" had fared better than the others. As usual, we were prepared for such emergencies, having with us a feed of oats and a comfortable lunch of bread and butter, canned tongue, sardines and a bottle of 'Tokay.' A little farther along was an open space, with a clear brook running through it. This place was selected, and the preparations for breakfast soon completed. Taking off the bridle and pouring a generous feed of oats on the clean grass, we invited Bess to enjoy herself. A mossy knoll near by answered for table and chairs, and we were soon busy and as much at home as though to the "manor born." The dining room was neat and spacious, with no smoke or smell of pent-up cooking. A flood of warm sunshine lay on the grass and trees about us, making them a still richer green in the light. A soft breeze shook the sweet elder blossoms down from their feathery sprayed corymbs, powdering us with pearl and perfume. In a hemlock near us a red squirrel laughed at and scolded us by turns, for invading his premises. A woodpecker drummed away on the dry limb of a tree, contrasting pleasantly with the soft chirp of some handsome cedar birds that sat nearly motionless in a small maple. Just as we were in readiness to start, the squir-

rel which had been so inquisitive came down the tree, and crossing the road in front of us, ran along on the crooked fence, uttering his saucy, defiant chitter. The little girl called vehemently for me "to catch him!" and she was inclined to be indignant that I did not do so. A year ago, as we were driving around the Park Meadow, a red squirrel, not quite grown, crossed the road and made for a shade tree in the grass. I sprang out of the carriage and gave chase, and just before it got out of reach in the tree, caught it. We carried it home, where it became the pet of the household. Since then "Anemone" thinks I have only to make the effort, to catch any squirrel we may see by the roadside.

As we passed out into the open country between meadows, a perfume, strong and sweet as rose or violet, seemed to fill the land. At first it was a surprise, but soon we saw that one of the meadows was filled with clover, whose blossoms were neither red nor white, but a kind of compromise, more nearly pink. It was the Alsike, the most strongly fragrant of the leguminous family. This beautiful clover was formerly supposed to be a hybrid between the red and white clover, hence its botanical name by Linnæus (Trifolium-hybridum), but it is now conceded to be a distinct species. Still I am inclined to think that it hybridizes with our little white clover (T.-repens). Our clovers are all sweet-scented, particularly the last named, which is such a favorite with the honey bees. The red clover, with an entirely different odor and quality of honey, is loved equally well by the wholesome country bumble-bee, the

bass singer in the insect choir. The sweet clover, formerly cultivated in gardens for its perfume, has now taken possession of hundreds of miles of roadsides, where it not only beautifies these waste places, but sheds a delightful aroma for all who travel these favored thoroughfares. The old bed of the abandoned Genesee Valley Canal is a wilderness of this handsome and fragrant plant, which is now placed among the weeds, far more interesting and useful in this vagabond life than when petted in the garden.

In ascending and descending steep hills, Bess has had a new experience on this journey. The driving with her heretofore has been about the city or neighboring level country. She knew nothing about holding back, and the first steep hill that we had to descend tried severely her faith, and a little her patience. As the carriage began to crowd, she wavered a minute, looked back inquiringly, and almost beseechingly, and then stopped. I alighted, patted her neck a minute, and stepping in front of her, said, "Come along, Bess." The fear was all gone. She needed no rein, but followed along slowly and carefully, every little while putting her nose on my shoulder, perfectly confident that all was right. She has now learned to zigzag across the roads up and down hills, as all teams do, down the steeps at Mount Royal, Montreal. The first time she did this of her own accord, Anemone, watching her admiringly, said, "Papa, Lade must have a great many *thinks* in her head to be so cunning." Our drive to Liberty was over a rolling country, thence through a pleasant valley to Avoca,

where we stopped for dinner. As we started out in the afternoon, we overtook in the village two Italians, one carrying a heavy pole, the other leading a huge performing bear. Horses almost invariably shy at a bear; not so, Bess. She sprang forward for it, and it was with difficulty I kept her from running the ungainly creature down. It seemed to be a new experience to the Italians, who screamed and howled upon us some imprecation, but they were lively in giving us plenty of the road.

We spent a few days pleasantly with friends at Bath, but the weather was intensely hot and dry, making travel uncomfortable, excepting in the early and later portions of the day.

Arrangements had already been made to spend a week at Hammondsport. So we concluded to start very early in the morning in order to avoid heat and fatigue, the two chief drawbacks of summer travel by private conveyance.

The carriage was at the door about 3 o'clock, and we were some miles on the way before the first signs of the morning appeared in the east. It seemed a little weird and uncanny at first to start out into an unknown country in the night, but just as the first streaks of dawn appeared, a delightful change came over the face of nature. We were well up the valley as the stars began to fade out and the yellow to overspread the eastern sky. A heavy perfume of grass and growing grain filled the cool, dewy air. The sibilant song of the hair bird, insect like, was the first sound of awakening

nature; then the robins joined in the chorus, immediately followed by the blue bird, vespers, Savannas, and song sparrows. It seemed that in a minute or two after the first note a hundred birds had joined in the morning anthem. It was one of the most delightful concerts to which I have ever listened, and lasted an hour or more, with little interruption. Occasionally the barking of a farm dog, or the crowing of a cock, would break in upon the chorus, but even these clarion sounds made no discord in the melodies. It was one of the most enjoyable drives of the journey, and when we came in sight of the blue lake, the shadows still reached well across to the western shore.

For many years this sheet of water was called Crooked Lake, probably from its divisions, but it has again taken its Indian name, Keuka, or Ogo-ya-ga, meaning promontory, projecting into the lake. It is a gem of pure blue water, "a liquid eye in the face of nature." The country about has long been noted for its fine scenery, but it is now becoming famed for its vineyards and champagnes. There are three ends to the lake, and a village at each. Hammondsport at the south, Penn Yan at the northeast, and Branchport at the northwest. A hilly peninsula, now covered with vineyards, runs down between the arms from the north. This old-fashioned, picturesque village is becoming a favorite resort for those who enjoy fine scenery, good boating and fishing, and freedom from dress parade. The large and pleasantly situated hotel, near the steamboat landing, kept by the Fairchild Brothers, is a

delightful abiding place. The fare is first class, and the friendly, cheerful service excellent. For dinner, salmon trout, caught the same morning from the cool waters of the lake, was a daily feature at table.

Many of the drives in the neighborhood are pleasant, and full of objects of interest. There are flourishing vineyards to examine, and wine cellars to explore, that will keep one busy for days; and then if you care to learn the process of making still wines or champagnes, you will find experts who will cheerfully show you all the mysteries.

For hot, sultry days you will find shady nooks and rocky glens that afford cool and pleasant retreats for reading or visiting, or for day dreaming, if you are romantically inclined.

A daily walk took us past a well-kept garden, containing many flowers, some of them rare. We often exchanged greetings with the pleasant old gardener, who delighted to learnedly expatiate on names and characteristics of his favorites. On one occasion I was admiring a flower that was new to me, and taking out pencil and book to make a memorandum, asked for the botanical name. His puzzled look showed that it was also unknown to him, but after hesitating for a moment he replied, "Ah! mon, call the beauty whatever you loike. Far be it from the loikes of me to tell a gintleman what he should call a purty flower. A pleasant morning to you, and the Lord bless you through the day!" His courteous escape from the dilemma is still my blessing, as the thought of it has since caused many a pleasant laugh.

We found the roads from Lake Keuka to the head of Lake Seneca in excellent condition. The scenery along the way was pleasantly diversified with fields and woods, sharp hills and fertile little valleys. Clouds and sunshine alternated during the forenoon, and the wind was equally variable. It was pleasant to see the shadows and sunshine chasing each other over the billowy fields of grain and unmown meadows. One could plainly see the spots in each that were rankest or thinnest by the way in which they were moved by the wind. The landscape was full of color—yellow stubble-fields, gray meadows of over-ripe grass, oat fields of the finest shades of light green, and, handsomest of all, the fields of corn with drooping leaves that look like rich ribbons of green satin. Corn is beautiful in growth, in all stages, from the little green leaf, just peeping out of the brown earth, to the fluted columns surmounted with golden grain.

Late in the afternoon we met a bevy of pretty young girls returning from a rural picnic. Their bright garments, with bows and ribbons fluttering in the breeze, seemed almost a part of themselves. The sight made one think of Emerson's expression: "The delicious faces of children, and the beauty of young school girls." It made one glad to look upon them and witness their unrepressed joyousness. They answered our few questions about the way with a frankness that was exhilarating. Surely there is no pleasanter sight than a company of fair, young girls in their holiday attire, unless it be a company of fairer older ones.

Two sweltering nights and one day of hard work was enough for us at Watkins. It was a hot morning in which we undertook to "do the Glen," and long before night the undertaking was cause for repentance. Boys and girls and happy lovers may enjoy the silvery cascades, the leaping falls, the pearling pools and gray rocks with hanging moss, the cool, dark recesses, with only glimpses of the blue sky, seen through rifts of overhanging rocks. They may enjoy the climbing up and the crawling down. Very likely they do, and they are quite welcome to the rustic bridges, the shady foot-paths, and the interminable flights of slippery stairs. The Glen is picturesque, grand, sublime. It is a wonderful work of nature, and it has had the assistance of art. I left it with deep regrets—regret that I carried away a headache, a rheumatic leg, and a lame back as the trophies of the day's toilsome explorations.

It was pleasant to again be on the road, especially as a refreshing rain during the night had laid the dust and cooled the air, which was freighted with the odors of growing things. To the languid incense from milkweeds and oat fields was added the more pungent fragrance of the labiates by the roadsides. One thought of that gem by Willis, 'Dawn:'

> "'Tis a morn for life
> In its most subtle luxury. The air
> Is like a breathing from a rarer world:
> It has come over gardens, and the flowers
> That kissed it are betrayed.
> I know it has been trifling with the rose
> And stooping to the violet. There is joy
> For all God's creatures in it. The wet leaves

Are stirring at its touch, and birds are singing
As if to breathe were music ; and the grass
Sends up its modest odor with the dew,
Like the small tribute of humility."

In many meadows men were cutting grass, usually with machines, but in a few stumpy lots of newly cleared land they were still mowing it with the old-fashioned scythes. It was pleasant to hear the swish as the blade went through the wet grass, laying it in cool swaths or little windrows. Occasionally a mower stopped to sharpen the scythe with the long, glistening whetstone, awakening rhythmical echoes in the neighboring groves. All along we were regaled with the delicious odors of the new mown hay. In one meadow a barefooted boy with a straw hat, from which the rim was gone, was violently whipping the ground with a wisp of grass. Soon afterwards we saw him wipe his hands on his pantaloons, and we knew that he had just swallowed the delectable morsel which he had robbed from the bumble-bees.

Ithaca, at the head of Cayuga Lake, is a charming village. We saw it to advantage from the top of the high hill as we approached it from the west. It was the quiet season at this noted seat of learning, as most of the students were away on their vacation. There was such a look of home comfort about the pretty dwellings, well-kept lawns and shady streets, that one could understand why it is such a favorite place for young men and women who like pleasing surroundings as well as excellent educational advantages.

On our way to Cortland we went a few miles out of the course to enjoy the drive over the rocky road along the eastern shore of the lake from Ithaca to Ludlowville. It gave us fine views of the lake and of the western shore.

VI.

Hills are a necessary feature in a pleasant landscape. This fact has been emphasized in the mind during our few days' stay in this thriving, busy village of Cortland. Look whichever way you will, your eyes rest on near or distant hills, a few still crowned with dark forests, but most of them smiling under cultivation. The village is situated in a broad and fertile valley, through which the clear, bright waters of the Tioughnioga River flow. Why the Indians called this river O'nan-no-gi-is-ka, meaning shagbark hickory, is a query, as there are few, if any, hickories in the county, the timber being principally maple, beech, basswood, white ash, and wild cherry: but there is no accounting for names. A stranger passing through this county might think by the guide boards at the corners of the country roads that he was traveling in the "Old World," so generally did the early settlers appropriate classical names in their local nomenclature. The townships in this county are Virgil, Homer, Solon, Tully, Lapeer, Marathon, Truxton, Cincinnatus, etc. The villages have been equally honored. Two Cincinnatuses nestle near

each other in the Otselic Valley. A lovely Homer stretches along the banks of the Tioughnioga, near enough to shake hands with its younger but more enterprising neighbor, Cortland; while East Homer beckons to both from a neighboring hillside. One can find Dryden a few miles to the south, Ithaca and Scipio at the west, and Pompey a little way at the north.

One day in company with some old-time friends, we drove over to the old homestead in Solon for a day's picnic in the woods. The trees about the farm house have grown almost out of recognition, but the row of large maples on the hillside have all disappeared but two, and they stand up, grand but lonely in their isolation, like some aged people who have survived their cotemporaries. The beautiful sugar bush across the flat has been cut down, and now blackened stumps and sunburnt grass are seen in the place of the smooth boled beeches and towering maples. On the way to the woods we passed through the large orchard, in which every tree was familiar. Although the orchard was mostly of seedlings, the fruit was better than any other that we shall ever taste again. Each tree had an individual history, and nearly every one a name. The "Good Tree," that ripened its apples so early, was missing, but the large "greening" next to it was still thrifty and full of apples. One year a late frost in the spring killed nearly all the fruit in the locality, but a large limb of this tree had been partially broken off and hung by a little wood and bark. The check of sap caused it to blossom a week or

ten days later than the rest of the tree, so it escaped the effects of the frost, and, in the fall, was loaded with apples.

The "Sheep-nose," a large, crooked tree, standing by a stone wall, was a great resort for the squirrels, which harvested most of its fruit. One tree bore apples which resembled pears in flavor. It went by the name of "pear-apple-tree." An old nursery, occupying one corner of the field, long ago became a tangled thicket of vines, brambles and scraggy apple trees. It was a favorite place for the shyer birds, and nearly every summer cuckoos and cedar birds had nests in this tangle.

One spring my father gave me permission to graft the lower row of trees. The operations were fairly successful, but boy-like I made a "mess" of it. Instead of putting only one kind of cions in a tree, I thought a variety would be better; as a result some of these trees rival "Joseph's coat of many colors." In one are "golden sweets," "fall pipins," "pear mains," "Baldwins," "greenings," "Tunecliffs," "early boughs," etc., summer, fall, and winter fruit, all colors and sizes, growing together. How many pleasant associations cluster about this orchard! How many friends have trodden its paths, and eaten of its fruits! What beauty and fragrance it provided for those who long dwelt so near it!

On the way back to Cortland, we stopped on the hill south of the village to get a panoramic view of the beautiful valley below. The sun had risen, and the steeples of the villages glistened in the light. Long silvery

streaks of fog hung over the winding river, shutting portions of it and the valley from view. Some of its edges were just ruffled by a puff of the morning breeze, while here and there it rose in billowy waves and floated up the valley; but whether in bars of defined outlines, or in undulating waves, it seemed the poetical feature in the landscape. The ancients supposed the mists and vapors to be the breath of the river gods. Ruskin interprets the fog to be the Daphne of Grecian mythology, and the sun dispelling it, Apollo. He says "Daphne is the daughter of one of the great river gods of Arcadia; the earth is her mother; she, in her first life, is the mist filling the valley; the sun pursuing, and effacing it from dell to dell, is literally Apollo pursuing Daphne." Emily suggests that "more likely these mists are the curtains that Amphitrite hangs before her beautiful nymphs while they are making their morning toilets." But all fanciful interpretations were dispelled by little Anemone, who innocently said, "Why, mamma, that is only *fog* hanging over the river."

The journey back to Buffalo was more direct, but made by easy stages, much of it in the early morning, or late in the afternoon. At no time did we hurry; but whenever the horse showed any signs of weariness, we looked for the nearest place of entertainment. Nothing tires a sympathetic driver more than to ride after a fatigued or hungry animal. In pleasantly discoursing of "Road Horses," in the April *Atlantic*, H. C. Merwin says: "In fact, a good roadster is something like a satisfactory bank account—your pleasure in his

capacity is great, almost in proportion as the drafts which you make upon it are small." In the forty-five days' journey we traveled something over one thousand miles directly, or in short-side excursions. We returned brown and hearty, with good appetites, and in good condition to sleep. Lady Bess had gained several pounds, and her coat was fine and glossy. Had she been asked the following morning if she was ready to repeat the journey, I think she would have nodded her head and whinnied, 'yes.'

ORNITHOLOGICAL NOMENCLATURE.

ORNITHOLOGICAL NOMENCLATURE.

To many, nomenclature has been a puzzling factor in the study of ornithology. Until a recent period the scientific names have been so often changed, and so multiplied, that one found he had as much to unlearn as to learn. Happily that has changed, and henceforth we may expect something like the same permanency in this classification that we have in that of botany and in most of the other sciences.

The committee appointed by the "Ornithological Union," have agreed on a uniform system, and have lately issued a 'Check List,' which is to be the established text with ornithologists.

As a convenience to those who are interested in the subject, and who have not ready access to more pretentious works, I have subjoined a list of common and scientific names to all, or nearly all, the birds seen in this locality, omitting the water birds, birds of prey, and some of the game birds.

Bobolink.....(*Dolichonyx oryzivorus*)
Cow Bird.....(*Molothrus ater*)
Red-winged Blackbird.....(*Agelaius phœniceus*)
Meadow Lark.....(*Sturnella magna*)
Orchard Oriole.....(*Icterus spurius*)
Baltimore Oriole.....(*Icterus galbula*)
Rusty Blackbird.....(*Scolecophagus carolinus*)

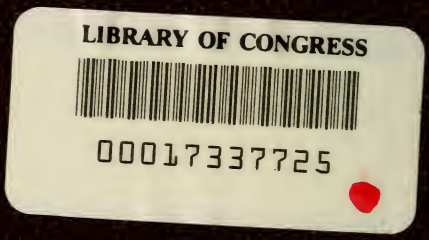
Crow Blackbird.....(*Quiscalus quiscula*)
Evening Grosbeak.....(*Coccothranstes vespertina*)
Pine Grosbeak.....(*Pinicola eneucleator*)
Purple Finch.....(*Carpodacus purpureus*)
American Crossbill.....(*Loxia curvirostra minor*)
White-winged Crossbill.....(*Loxia leucoptera*)
Common Redpoll.....(*Acanthis linaria*)
American Goldfinch.....(*Spinus tristis*)
Pine Finch.....(*Spinus pinus*)
Snow Bunting..... ....(*Plectrophenax nivalis*)
Lapland Longspur.....(*Calcarius lapponicus*)
Grass Finch.....(*Poocætes gramineus*)
Savanna Sparrow..(*Ammodramus sandwichensis savanna*)
White-crowned Sparrow.....(*Zonotrichia leucophrys*)
White-throated Sparrow.....(*Zonotrichia albicollis*)
Tree Sparrow.....(*Spizella monticola*)
Chipping Sparrow.....(*Spizella socialis*)
Field Sparrow.....(*Spizella pusilla*)
Black Snowbird.....(*Junco hyemalis*)
Song Sparrow.....(*Melospiza fasciata*)
Swamp Sparrow.....(*Melospiza georgiana*)
Fox Sparrow.....(*Passerella iliaca*)
Chewink.....(*Pipilo erythrophthalmus*)
Cardinal Grosbeak.....(*Cardinalis cardinalis*)
Rose-breasted Grosbeak.....(*Habia ludoviciana*)
Indigo Bird.....(*Passerina cyanea*)
Scarlet Tanager.....(*Piranga erythromelas*)
Purple Martin.....(*Progne subis*)
Cliff, or Eave Swallow.....(*Petrochelidon lunifrons*)
Barn Swallow.....(*Chelidon erythrogaster*)
White-bellied Swallow.....(*Tachycineta bicolor*)

Bank Swallow.....(*Clivicola riparia*)
Northern Waxwing.....(*Ampelis garrulus*)
Cherry, or Cedar Bird.....(*Ampelis cedrorum*)
Great Northern Shrike.....(*Lanius borealis*)
White-rumped Shrike .(*Lanius ludovicianus excubitorides*)
Red-eyed Vireo.....(*Vireo olivaceus*)
Brotherly-love Vireo.....(*Vireo philadelphicus*)
Warbling Vireo.....(*Vireo gilvus*)
Yellow-throated Vireo.....(*Vireo flavifrons*)
Solitary Vireo.....(*Vireo solitarius*)
White-eyed Vireo.....(*Vireo noveboracensis*)
Black and White Creeper.....(*Mniotilta varia*)
Blue-Winged Yellow Warbler.....(*Helminthophila pinus*)
Golden-winged Warbler.....(*Helminthophila chrysoptera*)
Nashville Warbler.....(*Helminthophila ruficapilla*)
Blue Yellow-backed Warbler...(*Compsothlypis americana*)
Cape May Warbler.....(*Dendroica tigrina*)
Summer Yellow Bird.....(*Dendroica æstiva*)
Black-throated Blue Warbler.....(*Dendroica cærulescens*)
Yellow-rumped Warbler.....(*Dendroica coronata*)
Cerulean Warbler .....(*Dendroica cærulea*)
Black and Yellow Warbler, or Magnolia Warbler, .. (*Dendroica maculosa*)
Chestnut-sided Warbler.....(*Dendroica pennsylvanica*)
Bay-breasted Warbler.....(*Dendroica castanea*)
Black-poll Warbler.....(*Dendroica striata*)
Blackburnian Warbler..... (*Dendroica blackburniæ*)
Black-throated Green Warbler.....(*Dendroica virens*)
Red-poll Warbler.....(*Dendroica palmarum hypochrysea*)
Golden-crowned Thrush.....(*Seiurus aurocapillus*)
New York Water Thrush.....(*Sieurus noveboracensis*)

Mourning Warbler.....(*Geothlypis philadelphia*)
Maryland Yellow-throat.....(*Geothlypis trichas*)
Yellow-breasted Chat.....(*Icteria virens*)
Hooded Warbler.....(*Sylvania mitrata*)
Black-capped Yellow Warbler.....(*Sylvania pusilla*)
Canadian Fly-catching Warbler.....(*Sylvania canadensis*)
American Redstart.....(*Setophaga ruticilla*)
American Titlark.....(*Anthus pensylvanicus*)
Cat Bird.....(*Galeoscoptes carolinensis*)
Brown Thrasher.....(*Harporhynchus rufus*)
House Wren.....(*Troglodytes ædon*)
Winter Wren.....(*Troglodytes hyemalis*)
Short-billed Marsh Wren.....(*Cystothorus stellaris*)
Long-billed Marsh Wren.....(*Cystothorus palustris*)
Brown Creeper.....(*Certhia familiaris americana*)
White-bellied Nuthatch.....(*Sitta carolinensis*)
Red-bellied Nuthatch.....(*Sitta canadensis*)
Black-capped Chickadee.....(*Parus atricapillus*)
Carolina Chickadee.....(*Parus carolinensis*)
Golden-crowned Kinglet.....(*Regulus satrapa*)
Ruby-crowned Kinglet.....(*Regulus calendula*)
Blue Gray Gnatcatcher.....(*Polioptila cærulea*)
Wood Thrush.....(*Turdus mustelinus*)
Wilson's Thrush.....(*Turdus fuscescens*)
Olive-backed Thrush.....(*Turdus ustulatus swainsonii*)
Hermit Thrush.....(*Turdus aonalaschkæ*)
Robin.....(*Merula migratoria*)
Blue Bird.....(*Sialia sialis*)
American Woodcock.....(*Philohela minor*)
Wilson's Snipe.....(*Gallinago delicata*)
Kildeer.....(*Aegialitis vocifera*)

American Quail.....(*Colinus virginianus*)
Partridge, "Ruffed Grouse".....(*Bonasa umbellus*)
Passenger Pigeon, "Wild Pigeon".(*Ectopistes migratorius*)
Mourning Dove.....(*Zenaidura macroura*)
Yellow-billed Cuckoo.....(*Coccyzus americanus*)
Black-billed Cuckoo.....(*Coccyzus erythrophthalmus*)
Belted Kingfisher.....(*Ceryle alcyon*)
Hairy Woodpecker.....(*Dryobates villosus*)
Downy Woodpecker.....(*Dryobates pubescens*)
Yellow-billed Woodpecker.....(*Sphyrapicus varius*)
Pileated Woodpecker.....(*Ceophloeus pileatus*)
Red-headed Woodpecker.....(*Melanerpes erythrocephalus*)
Red-bellied Woodpecker .. ..(*Melanerpes carolinus*)
High-hole, Flicker.....(*Colaptes auratus*)
Whip-poor-will..... .....(*Antrostomus vociferus*)
Night Hawk.....(*Chordeiles virginianus*)
Chimney Swift.....(*Chaetura pelagica*)
Ruby-throated Hummingbird.....(*Trochylus colubris*)
Kingbird..... .....(*Tyrannus tyrannus*)
Great Crested Flycatcher.....(*Myiarchus crinitus*)
Phœbe Bird.....(*Sayornis phœbe*)
Olive-sided Flycatcher.....(*Contopus borealis*)
Wood Pewee.....(*Contopus virens*)
Yellow-bellied Flycatcher.....(*Empidonax flavientris*)
Least Flycatcher.....(*Empidonax minimus*)
Shore Lark.....(*Otocoris alpestris*)
Blue Jay..... .....(*Cyanocitta cristata*)
Crow.....(*Corvus americanus*)

Note.—The writer acknowledges Dr. Bergtold and J. F. Cowell as authority for some of the migrants and visitants in the above list.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